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ANTE-MORTEM CARDIAC AND PULMONARY THROMBOSIS, AS A RESULT OF ABSORPTION OF PUS.

BY PROFESSOR WALLEY, VETERINARY COLLEGE, EDINBURGH.

THE subject of this communication was a well-bred grey mare, five years old, and about fifteen hands high. She had been in the possession of the owner since May 22nd, and with the exception of a slight cold at the time of purchase, she had enjoyed good health.

On October 9th my attention was directed to the animal, on account of her having been lame several days. On examination I found a small serous abscess inside the knee, the result of "speedy cutting." Rest, with antiphlogistic treatment, in order to reduce the inflammation, was first resorted to. On the 18th, after determining the character of the contained fluid by means of the exploring needle, I lanced the abscess. The wound progressed very satisfactorily until the 28th, when I found the knee and arm much swollen, hot, tender, and stiff, with great lameness; the wound gaping and discharging a sanio-serous fluid. This condition of matters resulted from the mare bruising her leg, by getting it across a low wooden hay-rack during the night. Ordered hot fomentations and anodyne

refrigerant lotions to the leg; gave a dose of physic, and directed that the animal was to be kept on low diet, the head to be tied up, and the rack removed. On the 29th I found my orders had been neglected, and that the mare had again had her leg over the rack during the night, and had bruised it still more severely in endeavouring to withdraw it. The inflammatory symptoms were much aggravated, the leg being very tense and painful, the inflammation extending up the superficial brachial vein. There was little or no symptomatic fever or constitutional disturbance.

On November 3rd a healthy abscess was found in close proximity to the wound, which was lanced. The inflammation from this time spread rapidly up the fascia of the arm and superficial veins, and threatened to extend by the cephalic to the jugular; but it was arrested in that direction by the application of a blister. Up to November 19th scores of abscesses —superficial and deep-seated, large and small—formed all over the leg, from the fetlock upwards, and either discharged their contents naturally or were opened. After lancing, the wounds did not heal, but formed unhealthy hyperæmic ulcers, which discharged an ichorous fluid. The inflammation was greatly intensified about the 6th by the attendant, whilst inebriated, severely scalding the shoulder and arm with hot water, which caused portions of the hair to fall off and the skin to be thickened. About the 11th a swelling appeared in the sub-scapular and anterior pectoral regions—tense hard and very painful on manipulation. It rapidly increased in size, and on fluctuation commencing, was lanced, when upwards of a gallon of laudable pus escaped. On the night of the 19th I ordered the removal of the mare to the college infirmary. An open "float" being obtained for this purpose, she could not be induced by any means to enter it, and became very excited; but subsequently a covered vehicle being procured, she walked in without the least resistance. Up to this time the appetite was good and the bowels regular; there was but slight fever and very little wasting, the latter being principally noticed during the formation of the large abscess. There was, however, considerable atrophy of the shoulder muscles.

On the morning of the 20th, about 7 a.m., my colleague, Professor Baird, observed a considerable alteration in the patient. She was much distressed, breathing heavily, heart palpitating and she was evincing great pain. A stimulating anodyne draught was administered, followed shortly by another; but the distressing symptoms increased, and she died at 11 a.m.

Autopsy.—On removing the shoulder, I discovered numerous abscesses in the sub-scapular fascia, one, very large and deep, extending towards the chest. The muscles of the limb were completely disintegrated, the superficial veins were destroyed, and there was immense deposition of lymph in the connective tissue of the leg. The skin was almost an inch thick. I did not see the animal alive on the 20th, as I was from home; but on my return in the evening I was shown a specimen of her blood (taken from the jugular by Mr. A. Gray, jun.) under the microscope, it being literally laden with leucocytes or pus corpuscles.

From the symptoms, and also from the condition of the blood, I came to the conclusion that an abscess had burst, owing to the excitement arising from the fruitless endeavours to get the animal into the "float" the previous night, and that pus had obtained access to the circulation, producing *ante-mortem* pulmonary and cardiac clots. This opinion was verified in the autopsy carefully made by Mr. Gray, who had the heart and portions of the lungs conveyed to the college. The *ante-mortem* clot was perfect, and the pulmonary congestion extreme; pus was found in the cavity of the chest, but there was no signs of pleurisy. The spleen was very large.

During the progress of the case, every endeavour was made by my assistant, Mr. Reekie, and myself, to circumscribe and control the inflammation. In the early stages, belladonna, etc., were administered; subsequently, ferri et cupri, sulph. arsenic, potassic iodide, cinchona, and sulphide of calcium, alternately, and in proper combination. Malt liquors, as well as stimulating and nourishing food, were also allowed.

THE CUTANEOUS OR PUSTULAR EPIZOÖTIC AMONG HORSES IN ENGLAND.

BY A. B. DANIEL, M.R.C.V.S., LONDON.

THE prevalence of a cutaneous disease among horses in the metropolis and different parts of England having been discussed at recent meetings of the Central Veterinary Medical Society, I have been induced to make a few observations on it, as it appears to me to be worthy of notice. We have had a great many cases ; at present a few, which are under observation. So far as past experience goes, I may give one or two facts. Last year we had it amongst our own horses, and then concluded that it was contagious. Our horses were then being fed on maize, although that, I believe, has nothing whatever to do with it. The disease occurs in animals frequently on other food. Many pairs of tram-horses have been affected singly, and have remained almost constantly in contact with others, but without the affected one inoculating his neighbour ; although it is matter of daily experience to find the first appearance of the disease on parts of the skin touched by the harness or saddle. It has appeared in one horse of a stud of ten horses cleaned with the same utensils, the rugs being used indiscriminately, and yet it has not spread to the others. It runs a definite course, first appearing in little rounded lumps (little watery heads, I believe), which gradually enlarge into flat bullæ, always isolated, and most frequently occurring on the back, sides, and quarters. They gradually become flatter in the centre, and if broken at first exude clear lymph ; later on this is more turbid, and finally forms pus. Scabs commence a few days after the appearance of the disease, looking as if stuck on ; and are detached after a week or more, with little trouble or pain. There is never any appearance of itch, which is strong negative evidence of the absence of parasites. In the first week more pain is evinced on touching or trying to detach the scabs than at any other time, the animal flinching and never showing pleasure in being rubbed, from the beginning to the termination of the disease, as he does in Mange, etc. When the scab is removed, a bare patch is exposed, the hairs appearing through the pus on the under surface of the scab. Sometimes the scabs become confluent, and large bare patches are left. If roughly brushed or

combed in the early stages, a greater portion of the skin becomes implicated, and the inflammatory condition caused in this way, involving the deeper structures, a rather severe sloughing wound results. I have one in this condition at present. In the great majority of instances, little constitutional disturbance is observed. When present it manifests itself in a transitory dislike to food, never for more than a day, and increased thirst, for perhaps two or three days. When I first noticed the disease, I tried different remedies suggested by its varying phases; but I have latterly found that beyond a little nitre and a bran mash or two on the earliest appearance of the malady, nothing else is requisite. Every outward application I have tried has certainly aggravated the complaint. If left to heal under the scab, the recovery is surest and most rapid. The duration of the disease varies. I may mention that, in a few instances, I have seen a little constitutional disturbance prior to the appearance of the little raised lumps. Finally, I should say its diagnostic features are its apparently epizoötic character, and possibly the slight febrile condition primarily; its generally attacking young horses; the little scattered discrete lumps or vesicles which gradually enlarge into blebs, quickly becoming pustular, and the bleb having a depressed centre, the margin well-defined, rounded, and raised; the isolation of the spots and their uniform character, scattered generally over the trunk; the curious stuck-on-like appearance of the scabs; and the absence of itching.

ANTHRAX AND OTHER DISEASES AMONG ELEPHANTS IN BRITISH BURMAH.

BY R. F. FROST, M.R.C.V.S., ROYAL ARTILLERY, AND VETERINARY INSTRUCTOR, GOVERNMENT FARM, RANGOON.

[WE know but little of the maladies to which elephants are liable, notwithstanding their great value to the Indian Government, and their usefulness for transport and other purposes. That they suffer severely from certain diseases, and that the mortality among them is enormously high—especially in British Burmah—is amply demonstrated in the tables furnished by

Mr. Frost. We feel much interested in the diseases of the elephant, and no less in those of the camel—creatures upon which we rely for important services in our Indian empire—and information with regard to them is always most acceptable. Such information is not only of value to us as pathologists, but also to veterinary surgeons in India, and particularly those who have recently arrived in that country. The ravages caused by Anthrax among all animals in India are very startling, and should surely induce our Government to institute investigations into the etiology and prevention of this scourge, similar to those which have been carried on for some time by the Bavarian Government, which we have frequently referred to, and will do so again shortly. As it is, perhaps, the most destructive and dangerous malady that affects animals in every part of our immense empire, it would certainly well repay the expense of a searching enquiry. No individual has the means to prosecute such an investigation, nor would he be likely to obtain any recognition or encouragement if he undertook the task.

In the meantime, those veterinary surgeons who have the opportunity can render good service by publishing their observations, and we shall do all we can to aid them in elucidating the nature of such disorders.

With regard to the treatment of Anthrax in elephants, we would urge a trial of that already recommended for horses affected with Loodiana Fever. The local tumours should be treated as described in "Veterinary Sanitary Science and Police," Vol. ii., p. 190. Particular precautions should be observed by veterinary surgeons and attendants to protect themselves from infection.—ED. *V. J.*]

I send enclosed herewith a few remarks on an outbreak of Anthrax Fever, which occurred among the elephants of the Commissariat Department at this station.

I regret that my other duties did not permit me to bestow as much time and attention on this outbreak as I could desire. The notes were hurriedly written for the information of F. F. Collins, Esq., Principal Veterinary Surgeon, Bengal Army, and it is at that gentleman's suggestion I send copies to you.

I am sorry I cannot, as suggested to me by Mr. Collins, send

you some of the blood for examination ; but should my attention be drawn to any similar cases in future, I shall take the liberty of sending to your address a specimen of that fluid. Among the enclosed papers you will find some showing the annual losses, and the supposed causes of deaths at the stations of Rangoon, Tounghoo, and Thayet-Myo from 1860 to 1878.

I also send the result of the analysis of the water.

Post mortem examination No. 1, of an elephant belonging to the Commissariat Department, Rangoon. Died at 4.30 p.m., 25th June, after an illness of two days.

1st. Body well nourished and muscles of a healthy hue.

2nd. On removing the right fore limb, my attention was at once drawn to the peculiar jelly-like deposit found in cases of Anthrax. This deposit existed to a considerable extent in the connective tissue of the pectoral muscles, and also between the scapula and costæ. In parts the deposit was of a yellowish white, and in others of a rosy hue.

3rd. Before commencing my examination of the body, and when conversing with Colonel Hawkes, ex-Commissariat Officer, I was told that among other symptoms exhibited by the animal was a small tumour in the region of the left parotid gland. I had the body turned over in order to examine the tumour, and on removing the skin covering the enlargement, a true Anthracoid Tumour presented itself. The same jelly-like exudate occupied a space of about eight by six inches.

4th. The blood in the veins was of a dark tarry consistence and colour, and in almost all the vessels coagulation had taken place.

5th. Only the normal quantity of fluid was present in the abdominal cavity. The peritoneum was healthy, but there was congestion of the mesentery. The spleen was of a dark colour, with considerable ecchymosis all over its surface. The same deposit just alluded to existed between the layers of fascia attaching the spleen to the stomach. On removing the former organ from the body, I found it weighed thirty-seven and a half pounds. The weight of the spleen of an ordinary-sized elephant is five pounds. On cutting into its structure and withdrawing the scalpel, the blade had adhering to it a thick layer of blood as

dark as ink, and this could be removed in large quantities by scraping the cut edges. The gland could be easily broken down by the pressure of the finger.

6th. On the under surface of the stomach, close to the pyloric orifice, was found another patch the size of a dinner plate, consisting of the same kind of deposit as I noticed in the tumour, In the sub-lumbar connective tissue I also found the same appearance. Above the penis, and close to the symphysis pubis, another large tumour was found.

The intestines, kidneys, &c., were healthy. There was a slight deposit in the substance of the lungs, which to a certain extent blocked up the bronchial tubes. A large quantity of frothy mucus was found in the trachea and larger bronchi, though there was no symptom of dyspnœa noticed before death.

7th. On laying open the pericardium, my attention was arrested by the large quantity of fluid which was contained in the sac. From a careful calculation, I came to the conclusion that it contained from thirty-five to forty ounces of serum, possessing more the colour of venous blood slightly diluted with water than real serum.

The external surface of the heart presented a peculiar appearance. Intensely dark ecchymosed spots studded its surface—some the size of a rupee, others that of an eight anna piece, and others still smaller. These were particularly numerous on the right auricle.

The horizontal and vertical grooves of the heart were filled with the peculiar jelly-like deposit.

Large coagula were in the right heart and pulmonary artery but none in the left. Although it is a remarkable fact that in Anthrax the blood is generally found in a fluid state, I did not find this to be the case in the present instance.

8th. There was no unpleasant odour from the body, although the autopsy did not take place until fifteen hours after death.

9th. A microscopical examination of the blood did not reveal anything peculiar in that fluid; but I must confess that I am not in a position to state that such may not be the case, as my instrument is not a good one, and my objectives are only inch and half-inch.

These are the leading *post mortem* appearances noticed by me, and I would now add a few remarks on the case.

This is the third elephant which has perished at this depôt within twelve days.

Case 1, died after a short illness. She was apparently in perfect health on the evening of June 14th, and died about 3 or 4 a.m. On the morning of the 15th I was asked to make a *post mortem* of the body, and to be present for that purpose at 5 p.m. Feeling the utter uselessness of attempting a satisfactory examination of such a huge carcase as that of an elephant in the space of an hour or an hour and a half, I did not attempt such a feat, but merely examined the viscera as they were removed from the body. In this case nothing attracted my attention except a large number of abscesses in the liver, which I thought sufficient to account for death.

Case No. 2, died on the 22nd, but as another engagement called me elsewhere, I was unable to attend the examination of the body. I am unable to state the result of the autopsy.

Case No. 3 is that alluded to under the heading "*Post mortem* No. 1." The following were the smyptoms detailed to me by the serjeant in charge of the animal :—

"The first symptoms of sickness were noticed on the morning of the 23rd inst. They commenced with lameness of the front and hind legs of the left side. During the day the elephant refused all food. (Col. Hawkes corrects this, and states it ate a little food.) No sleep at night. On the 24th, the left side appeared to improve by fomenting it with hot water and cow-dung mixed. Refused all food, and kept lying down and getting up at irregular intervals throughout the day and night. Slept very little, and ate no food. Administered a purgative through the medium of plantains and boiled rice, which slightly acted upon the system, the excrement being mixed with slime. On 25th the animal became worse. No sleep ; no food ; lying down and getting up till about 3.30 p.m. Appeared during the day to be in pain, which was evinced by the animal sitting on its haunches and biting its trunk ; made urine once yesterday, when at 4.30 p.m. it expired."

"P.S.—During the day a large swelling was found behind the left ear."

With the exception of the postscript, I do not think there is much value to be attached to the symptoms quoted. Col. Hawkes adds that the tumour formed very rapidly.

I wish here to enter into a matter which to many may not seem relevant to the case; but I nevertheless think it has a most important bearing in the matter. On the evening of the 25th Col. Hawkes asked me to make a *post mortem* at 7 a.m. the following morning, at which hour the committee was to assemble. I willingly consented to do so on one condition, namely, that I should be allowed my own time to complete the autopsy. In order to effect a careful examination, it is absolutely necessary to spend several hours over the task; and I am so far very pleased at having had an opportunity of bestowing the necessary amount of care on it. It has led to the discovery of many lesions which would have escaped my notice, had I been working against time.

The next important consideration is to endeavour to account for this fatal outbreak. Various forms of Anthrax Fever are very common in British Burmah. The soil is very retentive, and at the commencement of the monsoon vegetable decomposition is very active. The water is contaminated by every kind of filth, owing to the surface drainage finding its way into tanks.

The tank where the commissariat elephants usually drink and bathe, is situated close to the camp lines. About thirty elephants are washed in this tank daily. The excretions of the animals' bodies, fæces, urine, and perspiration, find their way into it. Several bullocks deposit their fæces and urine in it also, and lastly, but by no means the least source of contamination, is due to the natives, who are in the habit of washing in the tank if they can do so without being seen. I shall not now enter further into the subject of the water, as a small quantity of it has been forwarded for analysis. The forage of the elephants consists of rice in husk, and green fodder, consisting of fresh shoots of bamboo ebe. The animals are in very fine condition; indeed, Col. Hawkes considers they are, if anything, plethoric. I recommended the removal of the healthy elephants to another locality, and the administration of soda sulphite, but as this is not procurable in Rangoon, I was compelled to prescribe potassæ chlorate instead.

Post mortem, No. 2, of an elephant which died at 10 a.m., 29th June, 1878, after two days' illness. Body in good condition and examined seven hours after death.

Examination conducted under the most unfavourable circumstances. A steady downpour of rain continued all the afternoon, which materially interfered with the operation. So much was this the case, that I had to content myself with an indifferent autopsy. On each side of the penis,—which is about the region of the scrotum in other animals, I found two large tumours of the true Anthrax character; but with the exception of the intestinal mucous membrane, I did not, for the unfavourable reasons already stated, notice anything peculiar. The mucous membrane of the intestines was highly congested. The blood in the vessels was fluid, spleen 24lbs. in weight, the liver 61½lbs.

I saw the animal at 9.30 this morning, and examined the inguinal tumours. They were cold as ice, and on cutting into them no pain was evinced by the animal, nor did any discharge take place subsequent to the incisions being made. When I discovered the nature of the effusion, I had no doubt as to the result—which was death soon afterwards. The symptoms observed were not characteristic. The pulse was 68 per minute; pupils dilated to their fullest extent; breathing hurried; animal down and very uneasy. I had not my clinical thermometer with me, as my visit was accidental; but Col. Hawkes yesterday tried to take the temperature, though he was not successful.

The following were the symptoms detailed to me by the serjeant in charge of the Government Cattle:

"*Diary, Elephant 'Myazain,'* 27th June, 1878, 4 p.m.—Was observed to be limping when brought from shed to feeding place; ate rice and straw; no sleep during night, and ate very little; favoured hind leg (left) on account of pain.

28th.—A swelling between the two hind legs, on right of penis, was observed early this morning. On being taken out of the shed the animal drags the left hind leg. Ate charab freely from 9.30 to 10 a.m., passed urine of a whitish colour at 9.45 a.m., and appeared to have no pain in doing so. Passed about a glassful of a dark, watery excrement. At 11.30 a.m. passed, with slight difficulty, excrement of the usual description, denoting

food well digested. At 12.30 p.m., drank a few small buckets of well water and appeared refreshed. 2 p.m., lively and healthy-looking; eating charab; excrement of a healthy nature. 4.30 p.m., during this night no sleep, and the swelling at hind legs grew larger.

29th. — Between 8.30 and 9.0 a.m. — Animal becoming worse; the eyes changed from a bright appearance to a black colour; the tumour greatly enlarged since 6.0 a.m, and the creature weak, with a watery discharge from both eyes. At 9.10 a.m. it fell down in the shed, suffering from pain, and biting the trunk. Visited at this period by the veterinary surgeon, who took beat of pulse (68) and opened tumour. At 10.10 a.m. the elephant "Myazain" expired.

Since the animals were prevented from drinking at the tank in question the mortality has ceased.

Recently, the contents of the tank have been evacuated, but I regret to add only in an indifferent manner. The water has been removed by means of a syphon, but the sediment and filth of many years accumulation have been allowed to remain. Surely if the water was the medium of the contagium, it can scarcely be expected that the reservoir is now free from the germs of the disease! Every probable source of the malady should have been got rid of as far as possible.

I might add that the animals are picketed in open sheds erected on a hill, which allows of thorough and complete drainage.

ANALYSIS OF WATER FROM RANGOON.

	Well.	Tank.	Remarks.
Total Solids Gun, per lb.	0·130	0·170	Both waters are soft and not unpleasant to taste. Both contain too much ammonia, free and albuminoid, to be recommended for use. Except for albuminoid ammonia, the tank water is the better of the two.
Volatile do. „	0·050	0·015	
Sodium chloride „	0·068	6·046	
Total Hardness Gun, per lb.	5. 0	2° 0	
Permanent do. „	3. 7	1° 5	
Free Ammonia „	2·56	0·80	
Albuminoid do. „	1·00	1·85	

BRITISH BURMAH DIVISION—TONGHOO.

ELEPHANTS—ANNUAL MORTALITY OF—FROM 1860 TO 1878.

MONTHS.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	
Strength	46	41	35	32	30	30	31	34	35	34	31	31	23	29	27	52	57	42	4	
January...	...	...	...	1	...	...	...	...	...	1	3	...	1	...	1	...	...	...	...	7
February	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	1	1	4
March	2	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	1	...	6
April	11	1	...	...	1	...	...	...	...	...	...	1	...	1	...	...	...	1	...	16
May	15	...	...	1	...	1	...	3	...	...	2	1	...	...	...	...	...	5	...	28
June	3	...	1	...	1	...	...	...	...	...	...	3	...	...	...	...	1	4	...	13
July	1	...	...	1	...	...	1	...	...	...	1	...	...	...	2	1	...	...	...	7
August	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
September	...	...	...	...	...	...	...	...	...	2	3	1	...	...	...	1	...	...	...	7
October	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2
November	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	3	1	1	...	7
December	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	1	...	...	...	4
Total ...	32	1	1	3	2	2	2	3	1	6	9	7	5	2	3	7	2	13	1	102

TONGHOO.

ELEPHANTS. REPUTED CAUSES OF DEATHS—1860 TO 1878.

DISEASES.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.
Lung diseases	25	...	1	...	...	...	1	...	...	2	5	5	...	1	2	...	...	1	...
Heart diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Liver diseases	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...	...	1	...	...
Lung and Heart diseases ...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lung and Liver diseases ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bowel diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	...
Brain diseases ... ... }	...	...	...	...	1	...	...	...	1	4	1	...	1	1	1	...	...	...	1
Sunstroke ... ... }	1	...	...	...	1	...	...	...	...	...	2	1	2	...	...	...	...	5	...
Natural causes	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	2	...
Dropsy, "Zahartahd" ...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Debility	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Anthrax (Jolay)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Entozoa (internal parasites)	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	3	1	1	...
Accidental	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unrecorded...	...	...	...	...	...	1	...	3	...	...	...	...	1	...	...	...	...	1	...
Total	32	1	1	3	2	2	2	3	1	6	9	7	5	2	3	7	2	13	1

BRITISH BURMAH DIVISION—RANGOON.

ELEPHANTS—ANNUAL MORTALITY OF—FROM 1860 TO 1878.

	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	Total
Strength	30	30	30	30	30	21	19	25	14	16	28		29	27	30	23	25	29	27	
January...	...	...	...	2	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	4
February	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	4
March	7	1	...	...	...	...	1	...	2	...	...	...	...	...	1	...	...	...	...	12
April	8	2	...	...	...	1	...	...	1	...	1	...	...	...	2	...	...	...	...	15
May	...	...	...	2	1	2	1	1	...	...	...	...	2	...	1	...	...	...	...	10
June	...	4	1	...	...	...	2	5	1	...	1	...	...	1	...	...	...	...	4	19
July	2	...	...	...	...	...	...	1	1	1	1	...	...	...	4	1	...	...	1	12
August...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	1	...	...	5
September	...	...	...	...	...	4	...	...	1	...	...	...	...	...	...	...	1	2	...	8
October	...	...	1	...	1	...	...	...	1	1	1	...	...	1	...	1	...	1	...	8
November	...	1	...	...	1	1	1	...	...	1	...	...	...	...	...	...	1	...	...	6
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Animal Total	19	8	3	4	3	9	6	7	7	3	5		2	4	8	4	3	4	5	

RANGOON.

ELEPHANTS. REPUTED CAUSES OF DEATH—1860 TO 1878.

DISEASES.	1860.*	1861.*	1862.*	1863.*	1864.*	1865.*	1866.*	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	
Lung diseases								6	1	...	...	...	...	...	1	2	...	2	1	13
Heart diseases								...	...	...	...	...	...	...	...	...	...	1	...	1
Liver diseases								...	...	1	...	...	1	...	1	1	1	...	1	6
Lung and heart diseases ...								...	...	...	...	...	...	...	...	...	...	...	...	...
Lung and liver diseases ...								...	...	...	...	...	...	...	...	1	...	...	...	1
Bowel diseases								...	2	...	1	...	...	...	...	...	1	1	...	5
Brain diseases ... ... }								1	1	2	1	...	1	2	5	...	...	...	2	15
Sunstroke ... ... }								...	...	...	...	...	...	...	...	...	...	...	...	...
Natural causes								...	...	...	...	...	...	...	...	...	...	...	...	...
Dropsy								...	2	...	1	...	...	1	1	...	...	...	...	5
Debility								...	...	...	1	...	...	...	...	...	...	...	...	1
Anthrax (Jolay)								...	...	...	1	...	...	...	...	...	...	...	3	4
Entozoa (internal parasites)								...	1	...	...	...	...	...	...	...	...	...	...	1
Accidental								...	...	...	...	...	...	...	...	...	1	...	...	1
Unrecorded								...	...	...	...	...	...	...	...	...	...	...	...	...
Total	19	8	3	4	3	9	6	7	7	3	5		2	3	8	4	3	4	7	

* Causes of death for these years recorded inaccurately.

BRITISH BURMAH DIVISION—THAYETMYO.

ELEPHANTS—ANNUAL MORTALITY OF—FROM 1860 TO 1878.

MONTHS.	1860.*	1861.*	1862.*	1863.*	1864.*	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.
Strength †																			
January...						...	...	...	...	...	1	1	...	...	1	...	...	...	...
February						...	...	...	...	1	1	...	...	...	...	...	...	...	...
March						...	1	...	...	1	2	1	...	1	1	...	...	...	...
April						...	...	1	1	1	1	...	...	1	...	...	...	...	...
May						...	...	3	...	1	...	...	...	1	...	...	...	1	2
June						...	...	...	2	...	...	...	...	...	...	...	1	1	1
July						...	...	...	1	...	...	...	...	...	...	...	...	...	...
August						...	...	1	...	...	...	...	...	...	...	...	...	...	...
September						...	...	...	...	...	...	...	...	...	...	...	...	...	...
October						...	...	...	...	...	1	...	...	...	...	...	1	...	...
November						...	...	1	...	...	...	...	...	...	...	...	1	...	...
December						1	...	...	...	...	...	...	...	...	...	...	1	...	...
Total						1	1	6	4	4	6	2		3	2		4	2	3

* No records for these years. † Unknown. About 30, I presume. R. F. F.

THAYETMYO.

ELEPHANTS—REPUTED CAUSES OF DEATH—1860 TO 1878.

DISEASES.	1860.*	1861.*	1862.*	1863.*	1864.*	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.
Lung diseases						...	...	...	...	...	...	...	...	...	...	...	...	...	...
Heart diseases						...	...	...	...	...	...	...	...	...	...	...	...	...	...
Liver disease						...	...	...	1	...	...	...	...	...	...	...	...	...	...
Lung and Heart diseases ...						...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lung and Liver diseases ...						...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bowel diseases						...	1	...	...	...	...	1	...	...	...	...	2	...	...
Brain diseases ... ...)						...	...	2	1	1	3	1	...	...	...	...	...	...	2
Sunstroke ... ...)						...	...	...	...	...	...	...	...	...	...	...	...	...	...
Natural causes						...	...	3	2	1	...	...	...	...	...	...	1	1	1
Dropsy (Zaharbated)						1	...	...	...	2	1	...	...	1	1	...	1	...	...
Debility						...	...	...	...	...	...	...	...	...	...	...	...	...	...
Anthrax (Jolay)						...	...	...	...	...	...	...	...	...	...	...	...	...	...
Entozoa (internal parasites)						...	...	...	...	...	...	...	...	...	...	...	...	1	...
Accidental						...	...	1	...	...	...	...	...	...	...	...	...	...	...
Unrecorded						...	...	...	...	...	2	...	...	2	1	...	...	...	...
Total						1	1	6	4	4	6	2		3	2		4	2	3

* No records for these years.

OBSTINATE SKIN DISEASE IN THE HORSE.

BY A. E. QUERIPEL, M.R.C.V.S., R.A. RESERVE REMOUNT DEPOT, HAPUR, INDIA.

To add to the many valuable remarks offered by the contributors to the VETERINARY JOURNAL on the subject of the above-mentioned disease, contained in the issue for October, 1878, is almost, I fear, to be superfluous; but as in that number Mr. Walker invites opinions from members of the profession who may be luxuriating in these sunny climes, and as a great number of these cases have been under my care during the past two years, I think it but right to lay before your readers a short description of this disease as it is seen in India.

First, with reference to its nature. I have always looked upon it as a severe type of Prurigo, and certainly nothing can better describe the disease than the words contained in Mr. Percivall's Hippopathology, in which he speaks of it as "a sort of cutaneous furor to which horses pampered and little worked are liable, and which appears constitutional in its origin." Both in the Punjab and North-west provinces, this disease is very prevalent, and is one that causes great trouble amongst the troop horses during the summer months, owing to its severity and the chronic nature which it assumes. Climatic influence exercises great power on it, and one peculiar feature is that during the past two years all the cases which have been brought to my notice have been, with one exception, amongst our "Walers;" and in tracing the history of this exception, I find that the colt in question, although returned as a stud-bred or country-born, had "Waler" blood on the dam's side. This, then, would, I think, point to the fact that removal from the temperate climate of Australia to the fiery heat of the plains of India, must be looked upon as an exciting cause. That it is non-contagious, I have frequently proved. Horses thus affected have been standing for lengthened periods in close contact with others, and no sign of the disease could be traced on those that were healthy in the first instance. It is, however, constitutional, and assumes a very chronic form; in fact, in a battery or regiment one can safely foretell which horses will be affected during the hot weather. These horses

are generally perfectly free from the disease from October until March or April, but as soon as the cold weather has passed, it is sure to re-appear. Whether it is hereditary or not, I cannot say. I have tried to trace back the medical history of the colt's dam of which I before spoke, but have been unable to find it.

The symptoms are exactly those described in the October number of the Journal. The most prominent, of course, is the excessive irritation of the skin ; and, in fact, so bad is this in many instances, that unless carefully guarded the patient will rub or bite the affected parts until they are perfectly raw ; and although generally the horses in the very best condition are attacked, still such an amount of constitutional disturbance does the perpetual itchiness cause, that in a short time the animal is noticed to have fallen away greatly in flesh. The parts usually affected are the head, neck, shoulders, and lower part of the abdomen. At first a papular eruption is noticed, but after a little time the skin becomes thickened and corrugated. Microscopical examinations of the skin have frequently been made, but have always failed to detect parasites of any kind ; though as mentioned by Mr. Macgillivray, I am informed that in a few instances spots of some fungus have been discovered. This, however, is unusual.

With reference to treatment, I fear I can offer no remarks of any value. The pharmacy has been searched, and every medicine tried both internally and externally ; yet each has successively failed in those cases which have assumed the chronic form. Mr. Walker's advice has reached us rather late to enable it to be tried this year ; as I am glad to say we see but few, if any, cases in the cold weather. By reference, however, to the records of this depôt, I find that my predecessor adopted this mode of treatment, but with no better results, I think, than that met with from other preparations. I shall, however, give paraffin oil a fair trial when next an opportunity offers, and I trust I shall be equally fortunate. Any remedy which could be relied on would be invaluable in this country. Partial success has been obtained by the use of an oil derived from the hill fir. My treatment during the past hot season has been rather palliative than curative. I have had the patients frequently dressed with

a weak solution of acetic acid, which has tended greatly to reduce the irritation of the skin, thus avoiding in the most severe cases those troublesome wounds which occasionally arise from the horse rubbing himself; the milder cases have also, in most instances, yielded to this treatment. I have found benefit also to be derived from the administration of an occasional mild aloetic purge.

Editorial.

THE SWINE PLAGUE.

One of the most notable events in the recent history of Veterinary Sanitary Science in this country, is the recognition and adoption of legislative measures for the suppression of another of the contagious diseases which have for so many years proved harassing, and even ruinous, to agriculturists and stock-raisers. By adding Swine Plague to the other maladies which it has determined to control, the Veterinary Department of the Privy Council has shown that it is becoming alive to the necessity for extending its influence and its powers in the mitigation or extinction of those serious animal plagues which it had hitherto overlooked or ignored. We hope it may be moved to include some other maladies which are also preventable, and no less serious.

But we may well express surprise that in venturing beyond its previous stereotyped list of maladies, it should have blundered in giving this pig scourge the erroneous and dangerously misleading designation of Typhoid Fever—a designation which, in the earlier numbers of the Veterinary Journal, has been condemned as incorrect and inapplicable. The recent and most careful researches of such excellent comparative pathologists as Professors Klein, Osler, Burdon, Sanderson, and Murchison have established the fact that the disease is not Typhoid Fever.

The Privy Council Order has attracted some attention in the public press, and Dr. Vacher, Medical Officer of Health for Birkenhead, has pointed out in *The Times* of December 26th that the words "Soldier disease, or red disease"—names by which this contagion is likewise designated in the Order—may interfere with its satisfactory working; as these names are given to any affection in swine, accompanied by general or partial redness of the skin, and in true Pig Typhoid this may be, and often is, quite absent. This letter to *The Times* was followed by another on December 31st, on the same subject, which is here reproduced, and is sufficiently explanatory of the position we have assumed with regard to this disorder. We also refer our readers to what we have already published from time to time with regard to the pathology,

prevention, and destructiveness of the disease—destructiveness which is almost daily experienced in different parts of the country.

To the Editor of THE TIMES.

SIR,—Dr. Vacher has done good service in calling attention, in *The Times* of to-day, to the serious mistake made in the Privy Council Order with regard to what is therein designated "typhoid fever of swine (otherwise called soldier disease, or red disease)." For red soldier, soldier disease, and red disease are names popularly given to every morbid or deranged condition of the pig, in which there is more or less redness of the skin. Thus, in Anthrax Fever, Measles or *Rubeola*, Erysipelas, and a number of skin diseases, as well as in Asphyxia and Heat Apoplexy, we have this discolouration, and the above designations are generally applied to them indiscriminately, as if they were all one malady and the cutaneous tint was its characteristic symptom.

So that under this Order of Council pigs suffering from any of the affections or conditions just named will, in all likelihood, be condemned as the subjects of Typhoid Fever, and this may occasion great and quite unnecessary inconvenience, hardship, and loss. Besides, as Dr. Vacher correctly points out, all pigs not "red soldiers" will be adjudged innocent of Typhoid. In the latter malady, it is well-known to veterinary pathologists that redness of the skin is far from being a constant symptom. Its absence, therefore, would not warrant any one asserting that a pig was free from the disease.

But another very grave error perpetrated in the Order, and not alluded to by your correspondent, is that with reference to the name given to the malady in question. Well-informed comparative pathologists are cognizant of the fact that the disease is not Typhoid Fever, and that, pathologically and clinically, it entirely differs from that affection in the human species, the only resemblance between them being the presence of ulcers in the intestine of man and the pig. To give the disease this name is not only a mistake, pathologically speaking, but it is perpetuating an error which is eminently misleading to sanitarians and others, and may do much in maintaining and extending the scourge itself. The Typhoid Fever of mankind and this porcine plague are as different in their modes of propagation or transmission, as they are in their anatomy and pathology. The human disease is neither infectious nor contagious in the ordinary acceptation of these terms, whereas the swine fever is extremely so. Indeed, its virulence and powers of infection are as marked as in the Cattle Plague. Association with an infected pig for only a few minutes will transmit the virus to a herd, and that herd, driven to a fair, may infect all the swine in a county.

It is somewhat strange that the Veterinary Department of the Privy Council should have lent itself to the continuance of such a serious mistake in adopting a misleading and technical name for the disorder, seeing that in one of the recent reports of the Medical Officer of the Council there is a most excellent paper on the subject from the pen of Dr. Klein, F.R.S., in which this error is exposed, and seeing, also, that the Council had already wisely abstained from committing itself in this direction in dealing with the few contagious diseases of animals included in its lists, giving them only such popular names as serve to specify them—Cattle Plague, Foot-and-mouth Disease, Glanders, etc.

A far better and safer name for the affection than that given to it in this instance by the Privy Council is "Swine" Plague, for it is as distinctly a disease peculiar to the pig as Glanders is to solipeds, Cattle Plague or Rinderpest to the bovine species, or Typhoid Fever to our own species. A plague it undoubtedly is, for it is the most terribly destructive disorder to which pigs are liable; and if allowed to spread unchecked, there is reason to

believe it would lead to the almost total extinction of these useful animals. It has for years caused heavy losses in this country; but these appear to be trifling when compared with those sustained by the United States of America, where its ravages annually are something appalling.

By the way, I am not aware that any precautions are adopted with regard to the introduction of this most fatal and destructive disease from the United States, which now send large numbers of pigs to us. Owing to the absence of veterinary sanitary measures in America, Swine Plague ("hog cholera" or "intestinal fever" it is termed there) prevails widely and unchecked. So that this country, in its unrestricted and unguarded dealings with the United States, is exposed to importation of the contagious diseases prevalent there, and especially to this Swine Plague, as well as the Contagious Pleuro-pneumonia of cattle—a pest becoming well-known to the Americans. Would it not be advisable for the Privy Council, in correcting the mistake with respect to the designation of the pig disease, to consider in time whether this and the lung plague are not worthy of some attention at those ports of ours which admit animals from the other side of the Atlantic? Perhaps, also, if the United States Government received a hint that we were exposed to considerable risk in our animal traffic with it, and that if this traffic is to continue as if it were an uninfected country it should adopt measures to free itself from infection, we might be spared much trouble and loss, and the trade which is so advantageous to it at present would stand a chance of remaining as unimpeded as it now is.

I beg to remain, yours respectfully,

GEORGE FLEMING, F.R.C.V.S.,

December 26th. *Editor of the Veterinary Journal.*

"FLEMING TESTIMONIAL FUND."

AT the Committee meeting held at the Royal College of Veterinary Surgeons, on Friday evening, January 17th, 1879, Robert Ward, Esq., in the chair, it was resolved—

1. That, agreeably to the request of Mr. Fleming, the testimonial take the form of a handsome chime hall-clock, surmounted with a group of animals, at a cost of fifty to seventy guineas, and that Messrs. Batt, Duguid, and the Secretary be instructed to select and purchase.

2. That a neatly-illuminated scroll be designed by the engraver to the College, to contain text and origin of the testimonial, and the names of all subscribers.

3. That the presentation of the above, together with a purse, take place at the annual dinner in May next.

"Fortior est qui se, quam qui fortissima moenica vincit."—*Ovid.*

The duties of the Hon. Sec. being now near their close, it is sincerely to be hoped that the apparent misunderstanding existing between the Medical Associations' testimonial agents and the Committee should cease; for there cannot be ground for complaint. Indeed, if there be ground, it must be taken by the Hon. Sec. and Hon. Treasurer—for gentlemen allowed their names to be placed on the Committee, and it was understood "to assist the movement," attend the meetings and render assistance or advice; notices were issued, and summonses also, but the members of committee made themselves conspicuous by their absence. In fact, on one occasion only one attended, viz., Mr. J. R. Cox, and at some inconvenience. Thus, with only the two officials, nothing was done. With such visible apathy one can judge the feelings of the Hon Sec. and Treasurer, having the success or failure of the movement thrust upon them.

However, be all this as it may, the business has now advanced to near its completion, and our eyes should be directed to the one object in view, viz., a suitable expression of a rising profession to a brother who has, for no other object than true professional love, and earnest desire to place our craft in high esteem—in its true and legitimate position as an important science to our commonwealth—laboured for years as an author, alone, and in true simplicity. Then, let us set aside all party differences at once and for ever, go hand in hand, and on the first Monday in May present a testimonial worthy of the man. That the scroll may hold the name of every *good member* of our craft is the earnest wish of

ROBERT WARD, F.R.C.V.S.,
Treasurer *(pro forma)*.

London, January 20th, 1879.

P.S.—I have no wish to be the responsible holder of the fund, now that banks are alarming us, or before even; but it would be far more becoming if those gentlemen who have collected, would kindly give in the statement of amount in hand, either to me or the hon. secretary (the amount received by the Secretary amounts now to £235 2s. 6d, which, it is expected, will be augmented by subscriptions promised), they will greatly oblige.

THE ROYAL BUCKHOUNDS AND RABIES.

IN last month's issue we mentioned that Rabies had appeared among the Royal Buckhounds, and that the meets had consequently been discontinued. The disease was pronounced to be the dreaded malady by, we believe, more than one member of the profession, though a certain medical gentleman (of no experience, however) ventured to designate it "Kennel Fever." If the diagnosis of the veterinary surgeons was correct, then, of course, the most careful sanitary and prophylactic measures must have been recommended; and, doubtless, confinement to the kennels, or their immediate neighbourhood would be insisted upon until all danger had passed away. Considering the very uncertain latency of the malady in the dog—extending, as it does, from a few days to twelve months, the period during which precautions should be observed ought certainly not to be less than the maximum of the incubation period, and particularly if there was reason to believe that any of the hounds had been inoculated. In any case, provided always that the disease *was* Rabies, it was not to be expected that the hounds would be hunted again this year, and that the most scrupulous watch would be kept over them until the "meets" commenced next season. It was, therefore, with a feeling of the utmost astonishment that we observed the announcement of their having been again hunted, and that but for the frost they would have been regularly out. Surely this is tempting Providence with a vengeance! Should the infection linger among the pack—as well it may, for three months have not yet elapsed since the disease showed itself—then not only may the excitement of the chase bring it into active operation, and so lead to further loss among the hounds, but other animals and people may become infected should they get in the track of a hound which suddenly develops Rabies when after the stag. We earnestly hope that no member of the profession has recommended or sanctioned such a hazardous experiment. If he has, then blame will assuredly fall heavy on him should any mishap occur.

"HORSE-SICKNESS," AND OTHER DISEASES OF ANIMALS IN SOUTH AFRICA.

A FEW months ago, we alluded at some length to the formidable disease among horses in South Africa known as "Horse-sickness," and we expressed surprise that no scientific inquiry had been made into its nature. Through the kindness of the Principal Veterinary Surgeon to the Army, we have been favoured with copies of two reports: one from Mr. Wiltshire, colonial veterinary surgeon at Natal, and the other from Mr. Glover, veterinary surgeon in the Royal Artillery. We publish both; and it will he noticed that Mr. Wiltshire's is especially valuable, from the fact that in the blood he appears to have invariably found the *Bacillus anthracis*, a discovery which, if real, at once removes doubts as to the nature of the malady. We have all along suspected it to be Anthrax, but for lack of better evidence hesitated in giving a definite opinion. We expect to receive some inoculated aqueous humour soon, and then we shall be in a position to corroborate Mr. Wiltshire's opinion. The following is that gentleman's report:—

"Horse-sickness is an enzöotic affection supposed to be peculiar to South Africa; but I am informed that a disease very similar to it, in its symptoms and the rapidity with which it kills, affects horses in a district of India called Loodiana, and that it is there attributed to a peculiar kind of grass. I am endeavouring to obtain the fullest information on the subject, so as to compare notes of the two diseases to see if they are identical, but especially with reference to the cause assigned to each. "Horse-sickness" is a malignant disease, usually exceedingly rapid in its course, and terminating fatally in a few hours, but sometimes extending over two or three days. Occasionally an animal recovers; it is, however, subject to a second, and even a third attack, either of which may cause its death. This affection is not peculiar to the horse, as it also attacks the mule, quagga, &c. A gentleman also informed me that he had shot "Wildebeestes" seen to be suffering from sickness, in which the lungs were found to present the same appearances as those of a horse which has died from Horse-sickness. It occurs in summer, and all danger is supposed to be over when hoar-frost appears.

I have heard, however, that cases occasionally happen in the winter at the coast, generally when there is more rain than usual; and this year, after a summer remarkably free from it, it commenced in that district about the middle of April, and extended into the third week in May, a period unusually late for it. This disease manifests itself in different forms, viz.: the "Dikkop," "Black-tongue," and "Throat-sickness," characterized by external tumours, besides the most common form without any local swellings. All, however, are identical, I believe, in the condition of the blood, and in the lungs and intestines being more or less affected. In whatever form it appears, it often begins very suddenly, either during or after exercise; at other times the horse is dull and does not feed well for some days before any urgent symptoms are manifest, perhaps slight colicky pains. If, however, a clinical thermometer is used, the temperature is found to have risen to 102° or upwards. As a rule, the first thing noticed is the accelerated breathing and other symptoms indicative of inflammation of the lungs—such as redness of the mucous membranes of the eyes, swelling over the eyes, quick pulse, cough, coldness of the extremities, scanty urine, &c. On listening to the lungs, the sounds vary according to the progress the disease has made; in some instances they are not much altered, while in others there is an entire absence of sound except in the large tubes, which are found filled with yellow frothy mucus, giving rise to a bubbling sound at every inspiration and expiration. In some instances this mucus is discharged in immense quantities from the nostrils at each expiration, in others there is

no discharge. The whole of these symptoms are not always present nor of the same severity, (scarcely two cases being exactly alike); the temperature, however, is always high, usually from 105° to 108° Fahrenheit. In the varieties termed Dikkip, Black-tongue, and Throat-sickness, the head and other parts indicated by these terms swell up to a considerable size and interfere with the breathing.

Post-mortem appearances.—If the horse has been dead a few hours the body is found to be distended with fœtid gas, and there is generally a quantity of frothy mucus round the nostrils.

Abdomen.—On cutting into the abdomen, dark lines and patches are noticed on the intestines; the mesenteric glands are tumefied and very dark in colour; liver and kidneys gorged with blood; spleen dark in colour, and sometimes enlarged; the blood is dark in colour and coagulates imperfectly; on examining it with a microscope, in all cases where I have been enabled to do so, I have invariably found bacteria present.

Chest.—This cavity often contains a quantity of straw-coloured fluid on both sides. The lungs are found to be intensely gorged and very heavy, and along the edges and in patches a large quantity of yellow lymph is deposited beneath the pleural covering; on cutting into them blood and serum flows freely from the cut surfaces, as well as yellow frothy mucus from the tubes; the intertubular space is filled with fluid. The pericardium contains a quantity of straw-coloured fluid also. The heart I have sometimes found soft and flabby, and it usually contains small clots remarkably soft; in the left side there are invariably black patches (ecchymosis) beneath the lining membrane, more or less extensive. In the form termed Throat-sickness, there is great swelling of the throat between the jaws, involving the larynx, &c. I have not seen this form myself, but I am told that upon cutting into it the parts are very black. In those cases where the lungs are only slightly affected, and there are no external swellings, death appears to result from the intensity of the fever.

Contagion and Infection.—This disease is not considered contagious nor infectious. Whether it can be produced by inoculation I have not yet been able to determine.

Incubation.—The period of incubation is not known. I have no doubt that it is often very short, but there is reason to believe that in some instances it is in the system for some time before showing any outward symptoms, only waiting for conditions favourable for its development.

Causes.—The causes giving rise to this disease are very obscure; the opinion of the Dutch and that of the colonists generally is that it is due to miasma, and that it is contained in the dew, so that if a horse is not turned out to graze till the dew is off the grass, and brought in before it falls in the evening, he is safe. This practice is very good, but, as a matter of fact, it does not prevent the disease; besides which, many die from Horse-sickness that are stabled and not allowed to graze, but fed on grass cut for them. On the other hand I can hear of no well-authenticated case of Horse-sickness occurring in a horse fed exclusively on dry food, such as forage, mealies, &c., no matter how bad the situation of the stable nor how deadly the season for it. In all cases that have occurred in horses kept, as a rule, under these conditions—where I have been able to obtain reliable information—I have invariably found that they have either been allowed to graze on some occasion when out, or have had grass given to them in the stable; generally when they have been away from home or forage was not obtainable. The places most favourable for it are valleys and low-lying lands, but it also occurs on land at an elevation of several thousand feet above the level of the sea. In some of the most elevated districts of the colony, I understand that it has either never been known, or only in exceptionably bad seasons.

Predisposing Causes.—Among the predisposing causes of this disease are change of climate, a plethoric condition from good feeding without sufficient exercise and the proper regulation of diet; a hot and moist atmosphere favours its development, because it is depressing, the textures of the body are relaxed, the circulation is languid, and the skin as well as the lungs and other organs are less active in the performance of their several functions, so that respiration, digestion, and other vital phenomena, as well as the formative and eliminative processes, are impaired, and serious results follow. The bad sanitary arrangements to which horses are subject in this country, as well as the sudden changes of temperature, and fatigue from severe or prolonged exertion, are also predisposing causes. After carefully considering the matter, I am led to believe that miasma is not the cause of the disease, but that the poison is contained in the grass. In support of this, I may state that as the late summer was an unusually dry one, and "sleys" became dry instead of being saturated or covered with water as usual, consequently they were in a more favourable condition to throw off malarious exhalations than usual, the effect of which was seen in the increase of fever among human beings; and yet the season was remarkably free from Horse-sickness until we had rain. It seems to me, therefore, that heat and moisture are essential for the production or development of the agent which gives rise to this disease. What the precise nature of that agent is, is still a matter for investigation; but I think it is probably due to parasite fungi infesting the weeds and grasses in the same way as smut, rust, and other cryptogams affect forage and other grain. Animals have been known to become affected with diseases allied to this after eating food on which cryptogamic plants were found, and Colic often occurs after the ingestion of mouldy forage and other food affected with such parasitic plants; while colicky pains are often among the first visible symptoms of an attack of Horse-sickness.

Nature.—A consideration of the conditions known to be most favourable for its development, the causes assigned, the symptoms observed during life, and also the post-mortem appearances, together with the constant presence of bacteria in the blood—in every case where I have had an opportunity of examining it—enables me to identify it as one of a group of septic diseases termed Anthrax. Horse-sickness, then, is Anthrax Fever resulting from the action of a poisonous agent ingested in the food, impairing its vitality, and inducing a general morbid state of the system, with congestive inflammation of the lungs, and in some instances external tumours.

Treatment.—In the treatment of a disease so sudden in its development and fatal in its results, anything like a sperific is out of the question, and it too often happens that remedial measures, however prompt and skilfully applied, fail to produce any benefit. It must be borne in mind that there are grave changes in the blood, as well as an engorgement of both lungs and other organs to contend with, and also a high degree of fever; the treatment, therefore, should be such as will tend to counteract these several conditions. In the majority of cases the symptoms are not noticed till the disease is too far advanced for treatment to be of any benefit; when, however, they are noticed in a comparatively early stage, I would recommend the administration of 20 drops of tincture of aconite, to be followed as quickly as possible by a ball composed of

Powdered digitalis	1 dram.
Tartar emetic	1 „
Calomel.....	1 „
Camphor	1 „
Chlorate of nitre of potass.	2 „

with sufficient mass to make a moderate-sized ball; this may be repeated in

four hours, and about 10 or 15 drops of aconite may be administered every hour in the interval. Instead of blistering the sides with enphorbia, as is too often done, it would be better to dip rugs or blankets in hot water and apply them to the chest, or if a counter-irritant be applied, let it be mustard, it will be as efficacious as the other, and less likely to be injurious. Clothing may be put on so as to induce perspiration, and to relieve the lungs, and help to eliminate the poison ; and half an ounce of chlorate of nitre of potass. put in water for the horse to drink. Bleeding should not be had recourse to unless the breathing is very difficult ; in most cases that I have seen of this disease it has not been admissible, and it is often carried too far, so that if a horse does not die at once he is prostrated as to lessen the chances of his recovery later on.

When it is necessary to bleed, the amount to be taken should be in proportion of about 1lb. of blood to every 100lbs. of the horse's weight, unless the pulse begins to falter, in which case it should be stopped at once.

In those cases in which the bowels are constipated, oil should be given in preference to more active agents. Horses should be placed in a comfortable loose box, if possible, but as the stables are generally bad, they would often be better under the shade of trees or buildings when it does not rain. During the acute stages of the disease, horses are seldom inclined to eat ; but whenever they will, the diet should consist of bran or linseed mashes, roots, lucerne, sugar-cane, &c. If recovery takes place, forage and other good food should be given as well, in moderation ; and this, with the best nursing that circumstances will admit of, and the administration of tonics along with the food, will be essential.

In suggesting the above treatment, which, in my very limited experience of this disease I have found most beneficial, I am not prepared to guarantee its efficacy in any case.

Since I have been enabled to determine the nature of this affection I have not had an opportunity of testing the value of other medicinal agents ; but in the future I intend trying the effect of antiseptics, such as the sulphite or hyposulphite of soda, carbolic acid, &c.

Preventive measures.—The most certain way of preventing Horse-sickness, in my opinion, is to keep horses stabled, and feed them entirely on dry food, such as good forage, mealies, bran, &c. I consider it unsafe to give freshly-cut grass during the season for sickness. Of course, on farms where horses are bred, such a system is impracticable, and at present I can suggest no remedy ; but these remarks apply to horses in daily use in the towns and coast districts particularly. More attention should be paid to sanitary arrangements, the stables as a rule being too small, ill-made, and badly-ventilated, and, in many instances, reeking with filth ; and yet pure air and cleanliness are as essential for the maintenance of health in horses as in mankind. The diet should be carefully regulated so as to avoid the ill-effects of bad feeding, which are to be seen every day in disorders of the liver, colic, and other things too numerous to mention, all of which render horses more susceptible to diseases. In the detection of this and other diseases the use of the clinical thermometer will be found most valuable, as it is an unerring guide in the earliest stage, when outward symptoms are not to be relied on, and it gives time to adopt treatment which in many cases is successful.

Mr. GLOVER'S report, though dealing with "Horse-sickness," also mentions other maladies which are likely to attack the animals accompanying an Army Corps in South Africa. He writes :—

In the event of an advance of troops on the Zulu frontier, or a campaign in Zulu-Land, the diseases I consider most likely to produce havoc to any serious extent among the animals are four in number, viz., "Horse-sickness" and "Glanders," affecting horses and mules, "Lung-sickness" and "Red

water" affecting cattle. The sickly season in Natal is stated to commence in November and last until April; this period, however, particularly applies to Horse-sickness and Red-water, Lung-sickness and Glanders occurring throughout the year, and being little influenced in their severity by the seasons. Horse-sickness or Anthrax Fever, as is well-known, produces great mortality in this colony and the Transvaal, and having had some experience with a similar disease (Loodiana Fever) in India, I cannot hold out much hope of the mortality being to any considerable extent reduced. As regards the districts which suffer most, I believe those of Weenan, Ladysmith, and the country along the river Zugela stand first, and next the low-lying land on the coast. Utrecht and the country surrounding it is also very fatal; and I have heard of one valley but a short distance from Utrecht, in which it is almost certain death for any horse pastured in it during the month of December.

As far as I can ascertain, the districts most free from the disease are Weston, Grey, Zoure, and the country between the Biggarsberg and Newcastle. The greatest mortality occurs in low-lying districts, the high "Feldt" being comparatively free from the very virulent forms. The disease generally makes its appearance towards the end of November or beginning of December, the period varying to a great extent with the weather, early rains causing it to break out sooner than it otherwise might, and a dry summer is generally attended by the disease in a mild form. I cannot learn in what district it, as a rule, first shows itself, but I was informed lately by a very good authority that the Lower Zugela country is pretty safe up to January. As regards the Luneburg district I am unable to obtain sufficiently reliable information, but the possibility is that a similar prevalency exists there as at Utrecht and its district. The disease is said to be very fatal in Zulu-Land, even more so than in Natal, but as to the parts most liable to it I can acquire no information. Glanders is at all times more or less prevalent in Natal, and the probability of serious outbreaks occurring in the proposed campaign depends to a very great extent on the hardships the animals have to encounter, low condition and poverty being favourable to the production of "Spontaneous Glanders," the disease when once appearing being infectious and contagious. Lung-sickness or Epizoötic Pleuro-pneumonia is a highly infectious and contagious disease, producing great mortality, peculiar to particular districts, but met with all over the colony. The greatest mortality occurs on the principal routes of travel, a fact accounted for by healthy animals being brought more under the direct influence of infection and contagion. Up to the present time, this year, compared with others, has been very free from the disease, and as far as I can ascertain no outbreak of any consequence at present exists in the colony. The disease, I am told, is equally prevalent in Zulu-Land, instances having occurred of whole spans succumbing to its virulency, but I can gather no information as regards the extent to which it exists there at present. Red-water is a blood disease chiefly affecting the digestive organs. It is more rife and virulent at the beginning of the summer after the first week's rain, when the young grass has sprung up, and is met with in most parts of Natal, the greatest mortality occurring along the principal highways. The disease is prevalent between November and April, very wet summers being especially noted for its virulency. The road between Hawick and Colenso is considered the most deadly district for it in the colony, and that between Pietermaritzburg and Newcastle, *viâ* Greytown, correspondingly free from it. The country along the Zugela river, and what is known as "The Thorn Country," also suffers considerably, but it is a general opinion that up-country cattle have a certain immunity from the disease in these districts until very late in the summer. It is also met with about Utrecht and in Zulu-Land, but as far as I can gather the mortality

LIBRARY OF THE
STATE [illegible] COLLEGE
FORT COLLINS, COLO.

in these places is not so great as in most parts of Natal. The healthy season for animals in this part of South Africa is between April and November; still, should another season of drought occur, the probability is that the losses in stock, even during the healthy months next year, will almost equal the mortality of a bad sick season. In gathering information regarding the diseases and their localities peculiar to this part of South Africa, the greatest difficulty I have to contend with is the diversity of opinion as regards the prevalency of certain diseases in certain districts; one authority stating emphatically that such-and-such diseases are found in their worst forms in such-and-such districts, another perhaps informing me of quite an opposite state of things.

GLANDERS AND FARCY IN INDIA.

CONTAGIOUS diseases among animals in India must soon receive the attention of the Government of that country, as they appear to be spreading, and are of more frequent occurrence every year. Veterinary sanitary science has evidently received but little attention, notwithstanding all that the veterinary authorities in India have done in the way of investigating and reporting. That science has barely received recognition in this country—indeed, it is all but ignored—but that cannot be a reason for neglecting its teachings, warnings and advice in India, which is comparatively poor, and cannot sustain the terrible losses caused by preventable diseases, and so complacently borne in these islands. Glanders, at one time but little known in Hindustan, has of late years been assuming alarming proportions, and no measures seem to have been adopted to limit its extension. From the latest issue of the *Lahore Civil and Military Gazette* we glean the following, which is the most recent notice of the prevalence of this insiduous and deadly equine scourge:—"Glanders and farcy have appeared to a serious extent in several military stations in Upper India, at Umballa, Sialkot, Rawal Pindi and Peshawur. An outbreak of glanders occurred a short time ago amongst the horses of the R.H.A. battery at Mian Mir, but it has not spread amongst other horses. So long as veterinary sanitary questions are neglected in India, and grass-cutters, ekka and dâk gharry owners are permitted to drive infected animals with impunity, glanders and farcy will show themselves, and it may be in an epidemic form amongst our cavalry and artillery horses. When the loss in the latter becomes a 'financial consideration,' something remedial will perhaps be proposed."

In our next issue we hope to publish an interesting communication on this disease, from the able pen of our colleague, Mr. Queripel, of the Hapur Remount Depot, India.

THE MILK OF DISEASED COWS.

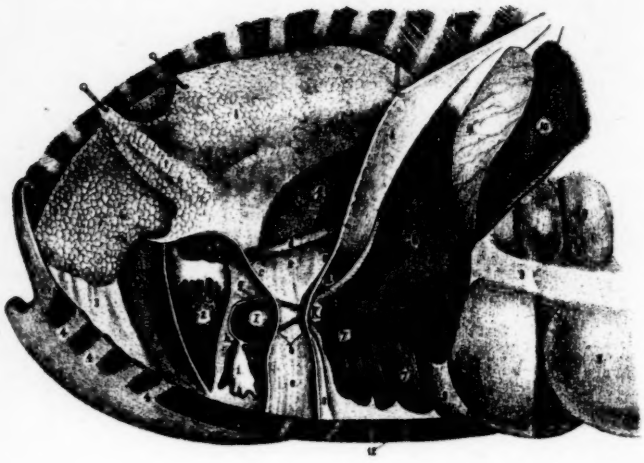
THE following request to the members of the profession, for assistance in the important investigations alluded to, needs no explanation. We earnestly hope that those of our colleagues who have the opportunity, will do their best to aid Mr. Blyth in his self-imposed task—the results of which will be advantageous to the veterinary as well as to the medical profession:—

Barnstable, N. Devon, November 17th, 1878.

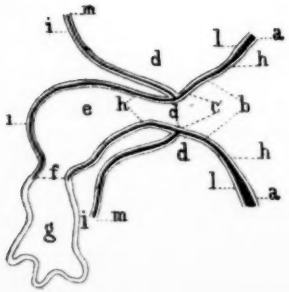
DEAR SIR,—I have recently been making a number of determinations of the urea, caseine, albumin, lacto-proteine, nitrates and nitrites, to be found in healthy milk. I now wish to study, quantitatively, the same matters in disease. I write therefore to you, to ask if you could give me any assistance

F1

Plate



F.2.



Pericardial Hernia of the Liver

in this investigation. What I want is, of course, samples of milk from cows either suffering from any general well-recognised disease, or any local disease of the mammæ. I can do with so small a quantity as 2 ozs., which could be sent by post. I would undertake, in return, to give you an abstract of the research for your Journal; but if I could get a continuous supply of samples, I should not be in a hurry to publish the results, until, at all events, the more common diseased milks had been fully investigated.

Your time is no doubt much taken up. I can only hope that you may set some of your numerous veterinary friends to work. The subject is of real importance; it is, in fact, a formal attempt to find a purely chemical method of distinguishing milk drawn from a healthy and milk from an unhealthy animal.

I am, yours truly,
A. WYNTER BLYTH, M.R.C.S., F.C.S., &c.,
Analyst for Devon.

ON THE PRESENCE OF A HEPATIC LOBE IN THE PERICARDIAL SAC.

HERNIA of some one or other of the abdominal organs into the thoracic cavity, due to traumatic influence, is not uncommon in animals, and particularly the horse, and is consequent, of course, on rupture of the diaphragm. A remarkable instance of this kind was recently published in this journal by Mr. Woods, of Wigan. Cases of apparently congenital hernia of abdominal viscera into the cavity of the chest are less frequently recorded, and we therefore feel ourselves justified in drawing attention to a rather extraordinary instance of congenital misplacement (Dystopia) of a portion of the liver, recorded by Professor Gaddi Gaetano, in the *Gazzetta Medico-Veterinaria* of Milan.

The subject of this report was a female ass, aged twelve years, which did not during life, it seems, exhibit any indications of the strange anomaly afterwards discovered in its biliary and circulatory apparatus. It was destroyed at the Bologna University, in order that its carcase might be utilized for the lectures on veterinary topographical anatomy. On opening the abdomen, it was found that a portion of the median lobe of the liver was lodged in a fissure in the diaphragm, and passing through that muscular septum this lobe protruded into the thoracic cavity. Leaving the liver and diaphragm intact, Gaddi removed the left side of the chest in order to examine more carefully this unusual hernia. This enabled him to fully ascertain the position of the misplaced lobe, and to obtain a good sketch of the relative situation of the viscera.

For the better comprehension of the transposition of the hepatic lobe, Gaddi gives a brief description of the liver—though, in doing so, he makes the mistake which every veterinary anatomist has made with regard to the Spigelian lobe:—a mistake pointed out by Professor Flower. Gaddi notes that the middle lobe is divided into four lobules or secondary lobes—a right and two middle of equal size, and a left usually larger than these. He justly mentioned that this disposition of the liver varies in the horse, and more especially in the asinine species, the middle lobe sometimes being divided into a larger number of lobules of different forms.

The annexed plate (fig. 1) represents the cavity of the thorax opened on the left side, with some of the thoracic and abdominal viscera removed, to exhibit the anomaly more distinctly. The left lung (1) is raised, and the heart (2), with the pericardium opened vertically, is shown; there are also exhibited the anterior mediastinum (3), the prolonging cartilages of the true

ribs divided transversely (4), the diaphragm (5) slightly carried forward, the left lobe of the liver (6), with the corresponding suspensory ligament turned back, the middle lobe of the liver (7), with its secondary lobules, the right lobe (7'), the falciform ligament (8), the two diaphragmatic and sternal curves of the colon (9) folded back, the spleen (10), with the spleno-gastric and reno-splenic ligaments, the great curvature of the stomach (11), and a portion of the rectus muscle of the abdomen (12).

The index finger was carefully introduced into the diaphragmatic opening (*a*), alongside the hepatic lobule; the opening was situated a little to the right of the phrenic centre, and corresponded to the anterior face of the middle lobe of the liver; it led to a tolerably wide canal passing into the thoracic cavity, and traversing the space between the anterior aspect of the diaphragm and the posterior face of the pericardium (*c*), in the cavity of which it terminated in a *cul de sac:* thus establishing a free communication between the abdominal and the pericardial cavity. The diaphragmatic aperture was situated about eleven centimeters from the scrutiform cartilage, and had a somewhat oval shape; the canal was directed from above downwards, and measured six centimeters in length; transversely, it measured four centimeters. The lateral borders appeared to be formed by a collection of various tendinous fasciculi from the phrenic centre of the diaphragm, while the upper and lower borders were composed of small fibrous fasciculi disposed in a semi-lunar manner to complete the diaphragmatic aperture. Elsewhere the walls of the canal appeared to be formed of the two serous layers of the diaphragm—the peritoneal and pleural. The canal itself, at first wide, became constricted about three centimeters from the diaphragm, then was again dilated until it entered the pericardial cavity, where it terminated in a wide elongated infundibulum, in which lay the hepatic lobule. The canal measured six centimeters in length from the diaphragm to the pericardium, and in passing through the thoracic cavity deviated slightly to the left side; the distance of the canal from the triangular muscle of the sternum was about five centimeters, and from the vena cava (*d*) twenty-two millimeters. It was maintained in position, above and below, by the ligament of the posterior vena cava (*e e*), constituted by the pleural layers. The middle lobe of the lung, which is normally situated to the left of the posterior vena cava and the said ligament, was not deviated towards the right lung, but remained separated from it by the usual wide space. The inferior portion of the posterior mediastinum was lacerated in various places, and similar lacerations were noticed on the diaphragm and external face of the pericardium. Opening towards the left was a kind of pyriform bursa (*g*), depressed from right to left; this contained the hepatic lobule, and projected as much as three centimeters into the pericardial cavity. In the superior extremity of the bursa was the canal communicating with the pericardium; the inferior extremity, which seemed to terminate in a *cul de sac*, presented a marked constriction (*h*), with a very narrow opening, which suddenly dilated and gave rise to a wide diverticulum (*i*) of the bursa, containing a small quantity of the usual peritoneal serum. This diverticulum also terminated in a *cul de sac.*

In order to show more distinctly the nature of this anomaly, and to enhance its scientific value, Gaetano gives a diagram or plan of the anatomical disposition of the parts. This plan (fig. 2) gives a longitudinal section of the canal communicating with the abdominal and pericardial cavity, omitting the diaphragm and pericardium. At *a a* are only those parts of the diaphragm which constitute at *b* a portion of the communicating canal, and terminate at the constriction *c'*; this canal is continued to the other part constituted by the pericardium.

The portion of the canal formed at the expense of the diaphragm was very

thin, and about three centimeters long. The intermediate part of the canal was constituted by the diaphragmatic serous membrane—the pleural external, peritoneal internal, lying together back to back. The second portion of the canal, measuring also about three centimeters, began at the constriction (*c'*) and terminated in front of the pericardium. The canal really commenced at the inner circumference of the constriction (*c'*), the true sac (*e*) containing the hepatic lobe being insinuated into the pericardial cavity. The thinner part of the canal (*f*) and its diverticulum (*g*) observed at the extremity of the sac, were constituted by some fibres from the pericardium, but more especially by the two layers of serous membrane.

At the letters *h h h* is the diaphragmatic peritoneal serous membrane lining the canal, sac, and diverticulum; while the internal serous membrane of the pericardium (*i i i*) covers the inner portion of the pericardial canal as far as the constriction (*c'*), becoming reflected to form the sac externally. The diaphragmatic pleura (*l l*) is carried downwards to cover the exterior of the communicating canal, and continued forward to form the pericardial pleura (*m m*). At the sides the pleura covering the canal passes upward and downward (*e e*, fig. 1) to become reflected on the posterior vena cava (*d*, fig. 1), constituting the ligament of that vessel, and thus forming two pleural layers, containing, as has been said, the communicating canal.

The shape of the contained hepatic lobule corresponded to the canal and sac, being drawn into a long narrow portion or neck, and terminating in an expanding mass (*l*, fig. 1). It presented a kind of fibrous ligament, formed by the adhesion of the peritoneal lining and Glisson's capsule, and it was surmised that this union had led to the lobule being carried forward. There was nothing abnormal observed in the structure of the tissue of the lobule, and, notwithstanding the constriction in the canal, there was ample room for the passage of its vessels and nerves. Indeed, the finger could be readily passed from the abdominal face of the diaphragm to the *cul de sac* in the pericardium, alongside the lobule.

Gaetano alludes to a similar displacement of the hepatic lobule in a dog, the report of which was published in vol. ii. (second series) of the *Memorie dell' Academia delle Scienze dell' Institutio di Bologna* for 1863. After discussing the origin of the anomaly with regard to congenital or adventitious development, Gaetano is of opinion that the hernia was congenital.

NEW MEMBERS OF THE PROFESSION.

At a meeting of the Court of Examiners of the Royal College of Veterinary Surgeons, held January 6th, the following students of the Royal Veterinary College were admitted members of the profession :—

Mr. James Richard Carter, junr.	...	...	Litcham, Norfolk.
„ George Crane Hunting...	...	...	Halvergate, ditto.
„ Frederic Thurston Hart	...	...	London.
„ Samuel Oxton Langley	...	...	Birkenhead, Cheshire.

The following students of that College passed their "Second Examination," at a meeting of the Court of Examiners, on January 7th :—

Mr. Wm. John Payton Tibbats.	Mr. Wm. Henry Beach.
„ Frank Taylor.	„ Frederic Gowland Rugg.
„ John Henry Riches.	„ Nicholson Almond.
„ Wm. John Malvern.	„ Henry Augustus Rumboll.

The following students of the same College passed their "First Examination," at the meetings of the Court of Examiners, held January 8th and 9th :—

Mr. David Evans.
„ Henry Porter Gilbert.
„ Alfred John Down.
„ Charles Samuel Hunting.
„ Edward Charles Wisken.
„ Ernest Emelius Bennett.
Mr. Edward Arthur Hollingham.
„ Edward Langford.
„ Frank Wm. Sharp.
„ Charles Albert Harriss.
„ Arthur John Blake.
„ Arthur Rogerson.
Mr. Stephen Edward Holmans.

At a meeting of the Scottish Section of the Court of Examiners of the Royal College of Veterinary Surgeons, held in Edinburgh, on January 15th, the following students passed their "Final Examination," and received the diploma of the Royal College of Veterinary Surgeons :—

EDINBURGH VETERINARY COLLEGE.

Mr. Edmund Day	... ...	Michaelgate, York.
„ George Humphries	... ...	Manchester.
„ Joseph Oswald Martin	... ...	Manchester.

EDINBURGH NEW VETERINARY COLLEGE.

Mr. Edward Curtis Howard	... ...	Thatcham, Berks.
„ George Alfred Browne	... ...	Coleraine, Londonderry.

GLASGOW VETERINARY COLLEGE.

Mr. John Robert Webster	... ...	Garrybritt, Wexford.
„ John Barry... ...	... ...	Fulfane, Kilkenny.
„ William Clay ...	... ...	Stockport, Manchester.

THE FITZWYGRAM PRIZE COMPETITION.

THE competition for the prizes given by Major-General Sir F. Fitzwygram, Bart., will take place on or about Tuesday, April 29th, 1879. The terms of the competition will be nearly the same as in previous years. The competition will be limited to gentlemen who have taken their diploma since the Easter examination of 1878.

Further particulars can be obtained on application to the Secretary of the Royal College of Veterinary Surgeons, 10, Red Lion Square, W.C.

Proceedings of Veterinary Medical Societies, etc.

ROYAL COLLEGE OF VETERINARY SURGEONS.

QUARTERLY MEETING OF COUNCIL, HELD JANUARY 15TH, 1879.

Present—The President in the chair; Professors Brown, Williams, Pritchard; Messrs. Balls, Batt, Blakeway, Cartwright, Collins, Cuthbert, Dray, Greaves, Freeman, Harpley, Moon, Taylor, and the Secretary.

The Secretary read the notice convening the meeting.

The minutes of last meeting were read and confirmed.

Correspondence.

The SECRETARY announced that the following letters had been received: —(1) From Professor McCall; Messrs. Broad, Cox, Proctor, Morgan, and Reynolds, regretting their inability to attend the meeting.

(2) From the Pharmaceutical Society and the College of Physicians, acknowledging with thanks the receipt of a copy of the register.

The SECRETARY stated that a copy of the work revised by Mr. Mayer on the "Anatomical Outlines of the Horse," by Macbride, and a pamphlet by Dr. Voelcker on "The Influence of Chemical Discoveries on the Progress of English Agriculture" had been presented to the library of the College.

On the motion of Mr. DRAY, seconded by Mr. TAYLOR, a vote of thanks was awarded to the donors for their presentations.

(3) Letters from Mr. Case and Mr. Gerrard wishing to be informed whether they were liable for duty on armorial bearings, if they used the College arms.

The SECRETARY stated that a reply had been sent in the affirmative.

(4) A letter from Mr. ROSE enclosing an advertisement from the *Wellington Journal*, Salop, in which a Mr. C. E. Onslow, innkeeper, styled himself veterinary surgeon in practice since 1845, and stated that he was well acquainted with anatomy and surgery according to the rules laid down by the Veterinary College, and that he was a cattle disease inspector by appointment. The writer wished to know how Mr. Onslow, not being a qualified veterinary surgeon, could be so appointed.

The PRESIDENT explained that as the Act of Parliament at present stood, there was no remedy for such cases.

PROFESSOR BROWN further stated that the Act provided that men could be appointed with no qualification other than that they had been previously so employed; and so long as the present Act remained in force they had no power to object to the appointment of persons who were not Members of the Royal College of Veterinary Surgeons. To a more stringent rule there was this objection, that if the local authorities in future objected to it they might apply for some other order; and if they did he did not know how the Privy Council was to escape. If the local authority said, "We have no men qualified under your order; we have only such and such within our reach," then the Privy Council would be bound to appoint such men. So far as the matter now stood, the arrangement was as satisfactory as it could be made. It would be much better if the original definition had been adhered to, but then the difficulty would have had to be faced that there were a large number of local authorities who were simply incapable of appointing members of the Royal College, because they were not to be found in their respective districts. He had examined the list and found that there were fifty local authorities authorised to appoint local inspectors, in whose districts there was no resident veterinary surgeon. There was indeed one county in Scotland where there was no resident member. Under those circumstances it was not an unreasonable request that something should be done to relieve them of a difficulty which was otherwise insurmountable. He should like to add that the local authorities had appointed veterinary inspectors from the members of the College to a very large extent. In some counties they had appointed every member they could find, and thus saved all the travelling expenses which otherwise would have been incurred.

The matter then dropped.

The SECRETARY read a letter from the Hon. Secretary of the Central Veterinary Medical Society thanking the Council for the use of the Board-room, and asking for the continuance of the same.

The application was granted.

The SECRETARY stated that a letter had been received from Dr. Favé, who had been for five years with a veterinary surgeon in France; who held a diploma, and was a licentiate of the French College of Physicians, and who wished to become a candidate for the diploma next session. His diploma for M.D. was lodged with Mr. Powys, of London.

The SECRETARY was instructed to write to the effect that no exception could be made to the ordinary rule, as laid down in the bye-laws.

A letter was also received from Mr. F. C. Clark, Birmingham, enclosing one from the secretary of the Royal Veterinary College.

The PRESIDENT explained the circumstances of the case. It was a good many years since Mr. Clark came up. He studied for one or two sessions, and he now wished to know whether he could pass under the old rules; but as these rules would cease in July, of course he could not come up for examination after that date.

Letters were received from Messrs. Edwards, Wycherley, Davies, and Ashe, rejected candidates, wishing to be informed whether there would be an examination at Christmas.

The SECRETARY stated they were informed that there would be an examination.

A letter was received from Mr. F. T. Murray, of Tralee, county Kerry, in which he stated that he wished to come up for his first examination in April next, and that he ought to be allowed to read at home and attend a "grinder," as in the medical profession.

A letter was received from Dr. Dunsmure, dated 16th December, stating that there were a limited number of candidates (eight) for the "pass examination" and one or two for the minor, and that there would be some difficulty in arranging the Board without incurring great expense.

The President, in a letter, replied that, so far as justice was done and a fair Court assembled, and there was a good examination, the Council would leave the pecuniary arrangement in Dr. Dunsmure's hands.

The SECRETARY read the following letter which had been received from Professor Walley:—

"VETERINARY COLLEGE, CLYDE STREET,
EDINBURGH, *Dec. 19th*, 1878.

To the Secretary of
The Royal College of Veterinary Surgeons.

"SIR,—I beg to bring before the notice of the Council what I consider a hardship, under certain circumstances, to students, in connection with rules 32, 33.

"At present a student is required to study three terms before presenting himself for the first examination, and two other terms before he is eligible for the second examination, *i.e.*, presuming that he has passed his first. Now, if from any cause the student is prevented from going up for his first after the expiry of three terms, or in the case of his having been rejected after the expiration of one; his course at College is much prolonged and a considerable addition is made to his College expenses. There are at present six students (two of whom were rejected in July last) in this College eligible for the first examination in January next, but owing to the fact that there are none from the other Scotch schools they cannot present themselves until April, thus throwing them back three months, and that from no fault of their own; and if they pass in April they will not be eligible for the second examination until January, 1880.

"I submit for the consideration of the Council the following proposition:—

"That if from any unavoidable cause a student is prevented from presenting himself for any examination in the usual course, he shall be allowed to go up for the next examination after studying one term less than the rule at present prescribes.

"Thus, in the case of the six students referred to above, supposing that they pass the first examination in April next, they will have to wait, as I have before remarked, until January, 1880, before they are eligible for the

second; but if my suggestion were adopted they would be able to present themselves for the second examination in July 1879.

"I shall be obliged by your bringing this matter before the Council at the earliest opportunity.

(Signed) "THOMAS WALLEY."

The PRESIDENT said that the proper course for Professor Walley to adopt was to give notice to the Council that he intended to move the rescinding of the laws in question.

Examinations.

At a meeting of the Court of Examiners for "the pass examination," held on January 6th, 1879, 4 students passed and 8 were rejected.

At a meeting for the second examination, held on January 7th, 8 passed, and 1 was rejected.

At a meeting held on January 8th, 1879, for "the first examination," 9 passed and 3 were rejected.

At a meeting on the 9th of January, 4 passed their "first examination" and 3 were rejected.

The PRESIDENT said he had put a notice on the paper about the instructions to examiners. At present no definite instructions had been given to them. The conventional rule was that five "Good" entitled the candidate to "very great credit," and four "Good" and one "Moderate" to "great credit"; while five "Sufficients" enabled him to pass. His feeling was that where "Sufficient" was taken, which really meant "Sufficient" and no more than "Sufficient," that therefore one mark below "Sufficient" should reject a candidate unless on one or more other subjects he had got a "Good." It would run in this way:—Four "Sufficients" and one "Indifferent" *reject;* three "Sufficients," one "Good," and one "Indifferent," *pass.* Surely the meaning of "Sufficient" was that it was no more than sufficient. Any mark that went below that, unless it was qualified by some higher mark on some other subject, ought to reject. They were all in favour of having more strict examinations every year, and he thought the Council should give instructions that anything less than five "Sufficients" should reject a man, unless qualified by a higher mark.

PROFESSOR WILLIAMS said he agreed with the President, but at the same time he saw a difficulty. A man might make two or three "Good" marks, and some "Sufficient," and would be marked "Bad," and how to deal with such a case was a matter of some difficulty. Suppose a man had one "Good," or one "Very good," a "Bad" mark would neutralise the "Very good" and bring it down to "Sufficient;" therefore he saw some difficulty in the matter.

The PRESIDENT.—You mean, not that you see any difficulty in what I suggest, but that it should be carried somewhat further.

PROFESSOR WILLIAMS.—Yes

PROFESSOR BROWN said it occurred to him that there would always be a difficulty in giving the examiners instructions for their guidance. If what the President suggested could be carried out, there would be no difficulty about it; but if they went beyond that there would be no end of difficulty.

Mr. COLLINS suggested that so many marks should be given in each class and each division, so that a certain gross number would not let him fall below a certain number on any particular subject.

Mr. GREAVES said it always appeared to him that different subjects should be valued at different rates.

PROFESSOR WILLIAMS suggested the appointment of a committee to investigate the matter, and if this were done, it would meet his proposal for the suspension of bye-law 31, and the new bye-law 46.

The PRESIDENT said he should be glad to assent to the appointment of a

committee to arrange for the marks and the words to be used, and for the value of the different portions of the examination.

PROFESSOR WILLIAMS said there was also another thing to be taken into consideration, namely, the finance. He had recently had a conversation with Professor Turner, and he (Professor Williams) stated that justice would be done to the examiners and the College by giving them so much per hour. By this plan the financial difficulty in which the College had been placed would be overcome. If the matter were left to a committee a very satisfactory arrangement might be come to.

After some further remarks,

The PRESIDENT moved the appointment of a committee "To regulate the marks to be assigned to the different subjects of examination, the marks which are to pass or to reject candidates, and the payments to be made to the examiners; also to consider any arrangements which can be made to suit candidates for examination."

PROFESSOR WILLIAMS seconded the motion which was carried.

The members of the Committee appointed were, The President, Professor Turner, of Edinburgh, Professor Williams, Professor Brown, Professor Pritchard, and Mr. Collins.

The Obituary notice was read.

The REGISTRAR reported that 100 Registers had been sold since their last issue, and eight Registrar's fees had been received.

The SECRETARY then read the Examiners' Report of the Examination of Candidates for the Royal Agricultural Society's Prizes, which Examination took place on January 7th, 1879.

The report was ordered to be forwarded to the Secretary of the Royal Agricultural Society.

To the President and Council of the Royal College of Veterinary Surgeons.

The Examiners appointed to test the qualifications of the Students competing for the prizes offered by the Royal Agricultural Society of England, for proficiency in the pathology of Cattle, Sheep, and Pigs, beg to present their report, and in doing so wish at the same time to express their regret that the number of Candidates should be so limited; but they do not attribute this to indifference on the matter so much as to the qualifications insisted upon to render them eligible being perhaps too stringent, as it has come to the knowledge of the Examiners that several others that did not quite reach that standard have expressed disappointment at not being allowed to compete. They also think that the period after the completion of their studies, instead of being limited to fifteen months, might be, without injury, extended to two years.

Another circumstance, the Examiners also hope that the lengthened period of study at the schools, which has not yet come into action, and the improved education thereby given, may increase the number of competitors in future years.

Out of the Students who had complied with the existing requirements, one had left this country for the United States, and of the others, at the last moment, only one presented himself before the Examiners.

The result of this examination has, however, fully equalled any previous one. Appended to this report is a copy of the questions that were propounded in the practical, oral, and written examinations.

The maximum number of marks was set at 1500, and the number reached by Mr. John Herbert Callow was 1230, which, in the opinion of your Examiners, fully entitles him to the First prize.

We have the honour to remain, your obedient servants,

(Signed) ROBERT L. HUNT,
THOS. WALTON MAYER,
D. GRESSWELL.

January 7th, 1879.

Mr. HARPLEY thought that some little revision of the qualifications for members of the College who came up for examination might be made. Some of the students who were likely to practise in the country, no doubt spent a great deal of energy and time in acquiring the knowledge compatible with the practice of diseases of cattle, with the hope that they would be able to come up for the Examination of the Royal Agricultural Society, and they passed very good examinations in this particular branch. They had more than qualifying marks sometimes, in the studies for examination. There was a special study for cattle, but unless they got five "goods" they were not able to come up for examination. He thought that to some little extent the qualifying marks for "great credit" or "very great credit" might be relaxed, so as to enable more members to come up for examination. It certainly seemed a most unfortunate thing that when the Royal Agricultural Society were trying to act in unison with the College, and a high prize offered, one student should only come up for examination. As far as the Secretary and the Royal Agricultural Society were concerned, they were most anxious to encourage the students that came before the Board of the College, so that he would urge upon the Council to relax their rules, in order that more men might come forward.

Mr. GREAVES said he agreed entirely with every word that had fallen from Mr. Harpley, and thought that his proposition was a very prudent and sensible one.

Mr. HARPLEY promised to see the Secretary of the Royal Agricultural Society, and ask whether the Committee would assent to the alteration, and if so he would bring the subject before the Council for reconsideration.

This course was assented to.

The Reports of the Finance Committee and Treasurer's Balance-sheet were presented, and it was stated that the vouchers for receipts and payments during the preceding quarter had been examined and found correct. The present liabilities amounted to £109 16s. 5d., which the Committee recommended should be discharged. The balance at the banker's amounted to £631 4s. 5d.

The SECRETARY stated that the treasurer had written, asking how much of the balance at the banker's the Council would agree to invest.

It was resolved that £300 should be invested.

On the motion of the PRESIDENT, seconded by Mr. DRAY, the report was received and adopted.

Cheques were ordered to be drawn for the current expenses.

The SECRETARY stated that, at the request of the President, he called upon Mr. Greenwood, house agent, relative to obtaining information as to purchasing a site or premises suitable for a College. Mr. Greenwood promised that he would make the inquiry.

The SECRETARY stated that a letter had been received from Mr. Broad, of Bath, asking the Secretary to write to Mr. T. D. Gregory, of Bideford, Treasurer to the late West of England Veterinary Medical Association, who held certain funds which had been promised some years ago to the Royal College of Veterinary Surgeons.

A letter had also been received from Mr. Gregory, stating that he was uncertain by whom the funds were assigned, and offering to send the amount to the Council, provided he was indemnified from all chance of having to pay it to any other body.

The Secretary was instructed to write, accepting the offer.

Mr. HARPLEY, as executor of his late nephew, Mr. William Field, stated that Mr. Field had left £100 to the Royal College of Veterinary Surgeons, and £50 to the Benevolent Society. There had been some legal proceedings as to the legality of the payment, but as the question had been decided

on the previous Monday, he had the pleasure to inform the Council that he would be able to hand over the two sums mentioned. There would be some legal expenses; but there would also be something due for interest, and he thought that, taking the one item against the other, the original sums could be handed over almost intact.

The Secretary read the following

Report of the Committee appointed to consider the Educational Tests to be required from candidates for Fellowship:—

The Committee recommend that the educational standard should for the present, and until further notice, consist—

1st. In such knowledge of Latin as would enable a candidate to write a Latin prescription, and to translate a given prescription from Latin.

2nd. In such acquaintance with the ordinary rules of arithmetic as is necessary for carrying on the business of a veterinary surgeon.

3rd. In writing a composition or letter on a given subject, with correctness and facility of expression, and grammatical accuracy.

January 6th, 1879.

The PRESIDENT said it would be seen for the present that, in accordance with the views of the majority of the Council, a very moderate standard had been taken, but still sufficient to secure the social and educational status of those who were admitted to the degree of Fellowship. At some future day the standard might be raised. He begged to move the adoption of the report.

Mr. DRAY seconded the motion, which was carried.

Letters were received from four candidates holding the Highland and Agricultural Society's certificate, wishing to be informed as to the rules for admission into the body corporate, and stating that many others required the same information. One of the applicants was desirous of coming up for the Fellowship degree.

The PRESIDENT said that they could not be admitted until the pending arrangements were completed.

The PRESIDENT said he had the pleasure to bring before the Council the Articles of Agreement drawn up by the Committee appointed to consult with the Highland and Agricultural Society, and he was glad to say that he believed the Highland and Agricultural Society would sign at their Annual General Meeting this day.

The SECRETARY read the agreement, which is as follows:—

ARTICLES OF AGREEMENT made and entered into this day of January, 1879, BETWEEN THE HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND, incorporated by Royal Charter or Letters Patent, bearing date the 17th day of May 1787, by the name and title of The Highland Society of Scotland at Edinburgh, and of new incorporated by the name and style of The Highland and Agricultural Society of Scotland by Charter or Letters Patent granted the 18th day of June 1834 (and hereinafter called "the Society") of the one part, and THE ROYAL COLLEGE OF VETERINARY SURGEONS incorporated by Royal Charter or Letters Patent, dated the 8th day of March 1844 (and hereinafter called "the College") of the other part. Whereas the Society have from 1823 instituted lectures on veterinary science and medicine, and appointed examiners to examine students therein, and until 1844 granted to such students certificates of proficiency. And whereas, in 1848 the Society reconstituted its Board of Examiners, and have since granted annually certificates of qualification. And whereas it was amongst other things provided by the said Letters Patent of the 8th day of March 1844, that the concerns of the College should be directed and managed by a Council to be constituted as therein mentioned. And further that the said Council should and might make any orders, rules, and bye-laws, for fixing

and determining amongst other things the times, places, and manner of examining students who should have been educated at the Royal Veterinary College of London or the Veterinary College of Edinburgh, or such other veterinary colleges as therein mentioned, and who might be desirous to become members of the College, and for regulating the nature and extent of such examinations, and for the appointment of persons to examine and determine upon the fitness and qualifications of such students, and for the admission or rejection of such students as members of the College, and for fixing and determining the sum and sums of money to be paid by such students either previous to their examination or upon their admission as members of the College or otherwise and generally touching all other matters relating to or connected with the College, and the same orders, rules, and bye-laws from time to time to alter, suspend, or repeal, and to make new orders, rules, and bye-laws in their stead as the Council should think most proper or expedient, so as the same were not repugnant to the Letters Patent now in recital, or to the laws of the realm. And whereas by a Supplementary Charter or Royal Letters Patent, dated the 23rd day of August, 1876, it was amongst other things declared that with certain exceptions therein mentioned, and not material for the purposes of these presents, the College and the Council of the same should have and continue to have all such and the same jurisdiction, powers, and authorities for and with respect to the government of the College, and for *inter alia* the making, ordaining, confirming, annulling, or revoking orders, rules, and bye-laws, and transacting and ordaining all other matters and things whatsoever for the regulation, government, and advantage of the College as the College and the Council thereof respectively had under or by virtue of the said hereinbefore recited Charter or Letters Patent, or in any other lawful manner. And whereas, in pursuance of the powers conferred upon the College or the Council thereof by the said Letters Patent respectively, certain bye-laws have been made with respect, among other things, to the examination of candidates for the diploma of the College, and such bye-laws are still in force. And whereas, the following arrangement has been made and entered into between the College and the Society with a view to the admission of the holders of the certificates of the Society as members of the College, and also for the purpose of terminating the examinations heretofore held by the Society. Now these presents witness, and it is hereby agreed and declared and in particular the College (so far as the stipulations and provisions hereinafter contained are to be performed or observed by them) do hereby for themselves and their successors covenant and agree with and to the Society and their successors. And the Society (so far as the stipulations and provisions hereinafter contained are to be performed and observed by them) do hereby covenant and agree with and to the College and their successors in manner following (that is to say):

1. Every or any holder of a Certificate granted by the Society in manner aforesaid since 1848 shall, on application and on payment of such fees as are hereinafter specified, be admitted as a member of the College, and shall not be required to submit to any further examination previous to such admission.

2. Every holder of a Certificate granted by the Society as aforesaid, from 1848 to 1872, shall be admitted as a member of the College on payment of a registration fee of one guinea.

3. All candidates for such admission to whom such Certificates as aforesaid shall have been granted since the year 1872, shall in like manner, without being required to submit to any further examination previous thereto, be entitled to such admission on payment of fees, according to the following scale or table (that is to say):

(*a*) Every holder of a Certificate granted during the year 1873 on payment of two guineas.
(*b*) Every holder of a Certificate granted during the year 1874 on payment of three guineas.
(*c*) Every holder of a Certificate granted during the year 1875 on payment of four guineas.
(*d*) Every holder of a Certificate granted during the year 1876 on payment of five guineas.
(*e*) Every holder of a Certificate granted during the year 1877 on payment of six guineas.
(*f*) Every holder of a Certificate granted during the year 1878 on payment of seven guineas.

4. All students now enrolled at any of the teaching schools connected with the Society, to whom such Certificates as aforesaid shall hereafter be granted consistently with the provisions of these presents, shall be admitted and enrolled as members of the College on payment of a fee of seven guineas.

5. The examinations heretofore held by or on behalf of the Society shall be discontinued as from the 1st of January, 1879, but this stipulation shall not preclude or prevent the Society from holding examinations according to its existing bye-laws or regulations for persons already admitted as students of the Society who may hereafter elect or claim to be examined by the examiners thereof, in preference to submitting to examinations by or on behalf of the College.

6. The College and Society respectively shall alter, vary, and annul their existing orders, rules, and bye-laws, if and so far as may be necessary to give full and complete effect to this Agreement, and shall also, if required, apply for and use their best endeavours to obtain Supplemental Charters for the same or the like object.

7. If any doubt, difference, or dispute shall hereafter arise between the parties hereto or their Successors, touching these presents or the construction thereof, or any clause or provision herein contained, or the rights, duties, or liabilities of either party in connection therewith, the matter in difference shall be referred to two arbitrators or their umpire, pursuant to and so as with regard to the mode and consequences of the reference, and in all other respects to conform to the provisions in that behalf contained in the "Common Law Procedure Act, 1854," or any then subsisting statutory modification thereof. IN WITNESS whereof the Society and the College respectively have hereunto caused their respective Seals to be affixed the day and year first above written, &c.

The PRESIDENT moved that the agreement be approved and in due time signed.

Mr. TAYLOR seconded the motion, which was carried.

PROFESSOR WILLIAMS said he would withdraw his notice of motion, which was rendered unnecessary by the committee that had been appointed on the whole question of examinations.

It was resolved "That the Committee should apply to the Privy Council for a Supplementary Charter to carry out the agreement with the Highland and Agricultural Society."

The meeting having terminated, a Special Meeting was then held to consider a notice of motion by Mr. Taylor for the alteration of bye-law 37, which is as follows: "No student shall be allowed to present himself before either section of the Board of the Royal College of Veterinary Surgeons for his first, second, or third examination more than three times."

Mr. TAYLOR, in bringing forward his motion, characterised the bye-law in question as cruel, oppressive, and unjust, both to the student and his parents.

He gave several reasons in support of his proposition, and remarked that there was no such bye-law in the clerical, legal, or medical professions. It was a hardship that a man after having passed his first and second examinations should be rejected on the third. It took away his last and solitary hope, and left the student a dejected and degraded man, and made the College the means of sending him into the world to get a livelihood under the guise of professional quackery or empiricism. He called attention to the fact that the clever student did not always make the best practitioner, but it was more often the plodding, industrious student who by sheer industry obtained that scientific knowledge which, after he had gained it, he retained all the more firmly in his mind. It was an injustice, to his mind, not to allow such an one sufficient time to complete his education, and he would therefore move that bye-law 37 be expunged.

Mr. GREAVES, in seconding the motion, fully concurred in the remarks made by Mr. Taylor.

The PRESIDENT said he regarded the existing bye-law as a most useful and beneficial one. It was an advantage to the student, because it checked idleness on his part; and it was an advantage to the father, because it prevented the student from wasting his time at College. It was most disadvantageous to a school to have a number of idle old students hanging about, spreading around them an atmosphere of idleness. A veterinary student ought to be a man of quickness of parts, and able to get through his work in a moderate amount of time. He did not see any injustice in the rule; on the contrary, he thought it was a most valuable one, and moved that the Council should stand by it.

Mr. COLLINS said he agreed with every word that fell from the President. At the Royal Veterinary College there were eleven who had been rejected three times, and twenty-one who had been at the College from periods varying from six years downwards. They found London a very pleasant place to live in, and so long as they remained at the College, and enjoyed themselves, the parents found them the means. As the President had said, they disseminated an atmosphere of idleness throughout the College. They knew all the haunts and amusements in London, and no doubt enticed and led away young men who came to town perhaps for the first time. He did not think it was desirable to have a number of these men hanging about the College. As to the dull members, whom some expressed a wish to legislate for, he thought that, as a rule, it was not the dull ones that failed to pass, but rather the lazy and idle men. They were generally sharp and quick, but they preferred to hang about London. He thought it was desirable to stick to the rule as it was at present.

PROFESSOR WILLIAMS said he had always objected to the bye-law, and he would support Mr Taylor in favour of its being expunged. As to the question of idle students hanging about the College, the Royal College of Veterinary Surgeons had nothing to do with it; it was a question entirely for the schools. He had sufficient experience to say that, if the bye-law was retained, now and then an injustice would be done to the slow, plodding, but deserving student, who, although he might not pass with three examinations, would eventually pass and become a good member of society.

The question was then put to the vote, when eight members voted for the amendment, and eight for the motion.

The PRESIDENT, following the example of the House of Commons gave his casting vote in favour of the *statu quo*, but said it remained for Mr. Taylor to bring forward his motion at a future meeting.

The motion was therefore lost, and the bye-law allowed to remain as it was.

On the motion of Mr. BLAKEWAY, seconded by Mr. DRAY, it was resolved

to send a letter of condolence to Professor Simonds on his recent domestic bereavement.

The PRESIDENT said he had had a letter from the Secretary of the Highland and Agricultural Society, that they had consented to the agreement that had been under discussion and had agreed to sign it.

On the motion of Mr. DRAY, seconded by Mr. TAYLOR, a vote of thanks was passed to the President for his conduct in the chair, and the proceedings terminated.

CENTRAL VETERINARY MEDICAL SOCIETY.

AT a meeting held on Thursday, December 5th, Mr. H. T. BATT occupied the Chair, in the absence of the President. The discussion was then resumed of the President's observation on the Skin Epizootic.—Mr. HUNTING said that he gathered from the minutes just read, that the affection was termed Ecthyma; if so, was he to understand it as an affection similar to that in the human subject—papules running on to pustules, followed by suppuration and scab formation? If so, it was allied to a disease he had noticed lately, not only in his patients, but in his own yard among nearly all the horses. It seemed to be conveyed by the saddle, crupper, or harness generally; as the shoulder, back, or top of the rump, was the most affected. It was noticeable, also, that simple treatment was effectual; warm water, fuller's earth, or glycerine being used. Some skin diseases were difficult to name especially; in others there was no mistake—such as mange or ringworm. In some cases the scabs were pretty distinct till they reached maturity, when a number ran together, forming a rather nasty sore.

The CHAIRMAN, regretting he had not heard the President's remarks in introducing the subject, said he had had great experience of the disease during the last nine months, especially in large studs. In some cases no treatment was required; others, again, were very troublesome, especially in high-conditioned animals. He had also had some hundred cases where no maize was given. In the difficult cases lead lotion and carbolic wash, with fullers' earth, were used with quick relief. Internally, he began with a dose of physic, subsequently he gave arsenic and copper, with speedy results, the boils disappearing in some ten days. Of its contagiousness he had no doubt.

Mr. SHAW said that in a case now under treatment, there was an immense slough in the shoulder. He gave arsenic, and applied zinc lotion; it was taken by contact with a recent purchase.

Mr. DANIEL said he would only observe with regard to the maize-feeding as a cause, that he did not think it was, as when it first commenced the tram-horses were not fed on maize at all. He had some doubts as to its contagiousness, because of instances where horses exposed to it had not taken the disease.

Mr. CHARLES considered it clearly contagious. He lately attended two thoroughbred mares out of town. Driving down with his pony, till then perfectly healthy, the pony was put up at the stables, and while waiting a cloth was thrown over him, which, though it belonged to the establishment, he could not say had been on the affected animals. But three days afterwards the pony was badly diseased, and he could instance cases produced from the saddle.

Mr. DANIEL said he did not mean to say it was not contagious, but to point out a fact worth knowing, that all were not affected, though they rubbed against diseased horses.

Mr. HAMILTON said all animals, like the human subject, were not liable to take disease, even if exposed: till the nature of the disease was decided,

it was like working in the dark. The non-reception of disease by those exposed to it would almost point out that they had already had it before.

Professor AXE, who now attended, regretted that an engagement had delayed him. He said it would be idle for them to discuss the parasitic or contagious theory unless they had some data to go by. He wished now simply to relate the result of some minor experiments, so far as they had gone. He had applied to an animal's skin a quantity of matter removed from an infected horse, the hair being previously clipped from the withers, and the scab-matter was rubbed sharply into the surface. In the course of clipping the hair the skin had been slightly irritated by the scissors, and an exudation followed, but as yet no eruption, similar to that in the disease, has occurred, only a serous exudation. A rug removed from a diseased to a healthy animal becoming diseased would suggest its contagiousness, but the same rug had not given it to another healthy animal. He had also examined the purulent matter without finding any parasites. Still, it might be determined to be parasitic and contagious after further research.

Mr. HUNTING wished to direct Professor Axe's attention to a statement made earlier in the evening respecting immunity from attack—viz., that in, say, a stud of twenty horses, nine might be exempt (as he knew had been the case). It was suggested that they might already have suffered. But they could hardly understand immunity, if it were parasitic, on such a supposition. Another feature was a considerable amount of fever and excitement when the pustular condition was reached. In exanthemata, as seen in Cow-pox, that was about the first symptom.

The discussion then closed.

Mr. Albert R. Charles was elected a Fellow, and Messrs. Charles Streather, of Marylebone, and Thos. Chesterman, of Whitechapel were proposed. Present —fifteen Fellows, and two Visitors.

JAMES ROWE, Hon. Sec.

LIVERPOOL VETERINARY MEDICAL ASSOCIATION.

(*Continuation of Mr. Gerrard's paper on Parturient Apoplexy. See page 48 of last month's Journal.*)

But I must hasten to notice the "*Anatomical theory of the disease.*"

The propounders of this theory endeavour to explain the reason why this disease occurs only in the bovine female, on the ground of anatomical peculiarities in the blood-vessels entering the cranial cavity, which, they assert, is the only true explanation of all the phenomena attending it.

Unfortunately, they differ very considerably in the descriptions of the anatomical relations and distributions of the cerebral blood-vessels, as well as the phenomena that such peculiarities give rise to.

For while one—Professor Walley—asserts "that the increased supply of blood to the brain of the cow, with its easier method of ingress (the flow of blood in the vertebrals being almost one *uninterrupted* and *straight* course), with the shorter neck and greater voluminity of the internal organs of the animal," is sufficient to account for it in the cow, and the reason why the mare is comparatively exempt from it; the other maintains that "the cow has no single large vessel entering the cranial cavity," but a number of small vessels which break up into a cluster or net-work of capillaries, known as the "*rete mirabile*" of Galen, these re-uniting to form the arteries of the brain proper; and that, in consequence of this arrangement, the arterial supply of the brain is very uniform, and any irregular pressure in the aortic system is only slowly transmitted to the arteries of the brain. But if this increased

pressure be long continued, œdema of the brain results, which is followed by *acute anæmia*, which Mr. Fleming maintains is the pathological condition of this disease.

In short, while Professor Walley maintains that the easy ingress of blood to the brains of the bovines gives rise to congestion, extravasation and coma, Mr. Fleming maintains, with an elaboration of reasoning and experiment unequalled in our literature, that in consequence of the complicated arrangement of the central blood-vessels, and the difficulty of influencing the circulation through them, anæmia is induced; so that you see the phenomena differ widely, as well as the *modus operandi* by which they are brought about.

Now, gentlemen, I desire to speak of all great authorities with respect, and that the more especially when we are under great obligations to them, and to no one in the profession are we more indebted than to Mr. Fleming; we owe him a deep debt of gratitude—a debt I am afraid we shall never be able adequately to pay; but we cannot allow our gratitude or our admiration of his genius to warp our judgments and cry "Amen" to his every conclusion.

Well, in this matter he adopts the German theory of Franck, viz., that it is "An *acute anæmia* and sudden loss of brain-power which account for the symptoms of this disease." His mind is evidently an eminently deductive one, for he starts from a mere speculative opinion, and then sets his great powers to work to fish in the troubled waters of physiology for facts to fit it.

To read his essay on this subject is a grand intellectual treat, for in it we can see to what an extent a well-trained mind can reach in its comprehension of disease processes, without perhaps ever having seen a case.

The position he maintains is this: Given a certain amount of aortic pressure and the parturient state, and this condition of acute anæmia must result; and in consequence, too, of this peculiar anatomical peculiarity."*

This anatomical peculiarity is a physical and mechanical arrangement for the purpose of modifying the rapidity of the flow of blood; and the type of it is that of an artery suddenly divided into a cluster of capillaries which reunite to form a single vessel.

Chauveau says of this cluster of capillaries, in relation to the circulation of the brain, that it would appear to be formed on the carotid and vertebral arteries of animals which, in a state of nature, feed from the ground; the object being to furnish an equable and prolonged supply of blood without the risk of check or hindrance, and thus to obviate the tendency to congestion of the brain during the dependent position of the head.

But this description would apply to the horse, for in a state of nature, and even in his domesticated state, he feeds from the ground, and yet it is not found in him. Moreover, he stands farther from the ground than any of the other domesticated animals, and when grazing the head is much more perpendicular than with them; so that if this arrangement be necessary in the ruminants to enable them to feed without congestion of the brain being induced, it is doubly necessary in the horse.

Further, we must remember that solipeds are monogastric animals with

* (This position is not mine, nor do I maintain it. If reference be made to "Veterinary Obstetrics," p. 656, it will be found that Franck (who is a very distinguished teacher at the Munich Veterinary School, and a good authority on cattle diseases), assumes it. That adopted by Mr. Gerrard, and which is well known on the Continent, is now almost entirely abandoned, as it is found that it does not afford a satisfaction of all the phenomena observed in Parturient Collapse.

It is scarcely necessary to mention that I have had some experience in the disease, though of course not nearly so much as Mr. Gerrard. But I do not attach so much importance to merely *seeing* a great number of cases of any disease, as I do to careful study and close observation of a few well selected cases.—*G. Fleming.*)

large intestinal development, and require a much longer time to gather and masticate their food than the polygastric ruminants, which can hurriedly gather up their provender and lie down to chew at their leisure. Consequently solipeds most require this complicated cerebral arrangement of blood-vessels, if this is its object.

But with all due deference to the opinions of such great men, I take the liberty of questioning the correctness of their conclusions, and of stating my reason therefor.

Every one, I presume, will be prepared to admit that in the arrangements of nature there seems to predominate evidence of benevolent design and operation.

Now we judge of the design of a contrivance by its predominant tendencies and effects. If evil were to result as often as good, we could not decide whether the design was benevolent or not; but if we find that the benevolent effects of every natural contrivance are so obvious and outweigh any evil results, then we are compelled to admit that the design is benevolent. The law of gravity is essential to the preservation and comfort of the world; yet it frequently gives rise to frightful accidents to men and animals.

In the animal frame we find a multitude of organs, nearly all of which are obviously adapted to a particular use. Now, the anatomist cannot lay his finger upon one of these and say, "this was intended to produce derangement and pain in the system." Here is a muscle contrived to clog the operations of its neighbours; here a blood-vessel adapted to corrupt the blood and produce disease; here a gland whose object is to secrete a poisonous fluid to contaminate the whole system; there a nerve made to produce pain; here a plexus of vessels suited to bring on disease—nay, the anatomist perceives at once that all the organs of the animal system and their collocation are fitted in the best possible manner to produce health, nay more, that there is nothing superfluous in the animal economy—nothing in vain.

Such being the case, we are led to ask what can be the object of this peculiar arrangement of the cerebral blood-vessels of ruminants; for we have seen that it must be benevolent.

Now it is obvious that the principal object observed in the formation and functions of the lower animals, is the preservation of the species; and for that purpose they are fitted by nature with organs of offence and defence, but suited to their various habits and requirements, and thus maintain the balance of organic nature. In a state of nature solipeds depend for their safety on their power of flight; hence their structure, the small stomach, the single digit, and the guttural pouch found only in them, the function of which seems to be to assist the sense of hearing, all tending towards the same benevolent end, viz., the preservation of the individual by flight.

The ruminants, on the other hand, depend for their safety upon their heads and horns; hence the immense development of the latter, and hence, as I think, the peculiar arrangement of the vascular supply to the former.

If this be not the object of it, it is more difficult to reconcile it with the theory of congestion from the dependent position of the head, seeing that solipeds hang their heads more in the gathering of their food, and yet have no such arrangement.

Moreover, it is better developed in the sheep and goat than in the ox tribe, and these are better suited to live in glens and on rocks and mountains in their natural state than the ox tribe; and this special arrangement of the circulatory system enables them to do so with greater safety, by equalizing the blood supply to the organ in which consciousness resides.

Nor is this the only organ in which anatomists find this special arrangement of the circulatory system. We find a type of this in the vascular pouches called the *glomerules of Malpighi*, and something similar in the

vena porta. The blood furnished by the cœliac axis and the mesenterics to the organ of digestion, is brought back by a number of veins into a common trunk called the portal vein, which, instead of emptying immediately into the *vena cava*, is first distributed in the liver in the same manner as an artery, and forms the afferent vessels of the liver, the capillaries, and finally the efferent vessels or hepatic veins, which flow into the *vena cava.*

The object of this is evidently to slacken the flow of blood, and to increase the surface of transudation. But we must pass on to notice the reasoning by which this anatomical theory is supported.

Notwithstanding the number and elaborateness of experiments and physiological laws adduced in support of the anæmic nature of this disease, not one single proof from autopsies has been produced, if it is possible to discover or demonstrate an anæmic condition of the brain *post mortem.*

All practical men agree in considering it a matter of great difficulty to reconcile with any certainty, the morbid appearances found in the brain with the symptoms observed during life. Many cows die with undoubted apopletic symptoms, and nothing has been found but congestion of the vessels of the scalp, the membranes of the brain, or the brain itself, and sometimes not even that. But if it were of an anæmic nature from any cause, it should be determined more easily. Anæmia is ordinarily recognised by the blanched and bloodless condition of the system generally, or of the organs involved. I have sometimes thought that the brain and nervous system in this disease presented a normal appearance, so that one might be led to infer that such might be the condition inducing those symptoms. But lately I have found well-marked cases of congestion, extravasation, and even clots on the brain and congestion of the meninges; so that I am inclined to question the correctness of the anæmic theory.

Mr. Fleming, however, maintains that this very congestion we find is the result of the hyperæmia leading to œdema; and when this occurs, anæmia sets in, in consequence of the œdema causing contraction of the blood-vessels, and preventing the further supply of arterial blood to the brain; this is aided by the heart's hyperplasia and the hydræmia which, he says, exists in all pregnant animals.

Well, I am not prepared to maintain that anæmia does not occur under such conditions, and that it is not the pathological condition present in parturient apoplexy; but I humbly submit that we would require better proof than that offered by experiments on living animals in the production of epileptic attacks and spasms, arising from an anæmic condition of the brain, induced by bleeding an animal to death; or the injection of water into the carotids, as performed by Bidder and Munk in the production of *Eclampsia*, before we can accept it as the cause of the phenomena observed in this disease, or the true theory thereof.

A theory to be true must be consistent with the undoubted facts of the disease, and with the established principles of physiology.

Now, if congestion of the brain and this attendant phenomena of acute anæmia can occur in ruminants, with a special provision as it were, against it, why does it not occur in solipeds, where the vascular arrangement is such as to allow of a more rapid ingress of blood to the organ?

In the mare, the process of parturition is suddenly accomplished in natural labour, and the involution of the uterus is more rapid even than in the cow; therefore, according to the theory of aortic pressure and anatomical conformation, we should expect to find congestion, œdema, acute anæmia, and all its attendant phenomena in her, but we do not.

Nor do we find Parturient Apoplexy in the ewe, although she possesses the anatomical peculiarities of the cow in a more pronounced form, and the parturient process is quickly and easily performed. Even in the sow—where

Mr. Fleming says "the *rete mirabile* is greatly developed," I have never seen or heard or read of a case of Parturient Apoplexy bearing any resemblance to that in the cow. Indeed, I never knew that it did occur in them until I read it in the "Veterinary Obstetrics"; but this you may set down to my having seen little pig practice. Not so, however, for I live in a pig-producing county, and have a fair amount of parturient practice in pigs; yet I have never witnessed a case.

I may mention that I have frequently seen in them, what he says Ellenberger and Wostendorf designate "*Parturient Eclampsia*," where the appetite is lost, and there is persistent lying, and refusing to allow the young to suckle, with elevated temperature, bowels constipated, and the suppression of the lacteal secfetion. But I never saw any convulsions or loss of sensibility, or anything approaching the Eclampsia of woman as described in the Rosenberg-Traube theory.

And, again, it is a well-known fact that in cows killed while labouring under this disease the blood is very plastic and very plentiful; so that the statement that it is hydræmic in them which conduces to this disease, requires some qualification or explanation, for the appearance which it presents suggests the idea that it has been flowing through the body without being properly deprived of its arterial characters, instead of being more diluted by the pregnant state—expressing the existence, as it were, of an extensive vasa motor paralysis.

The blood of the mare may, I think, be considered more aqueous even than that of the cow—if we may judge from a comparison of their milk; and this, taken in connection with the fact of the parturient act being more rapid and easy in the former, goes far to show that Parturient Apoplexy would be more likely to occur in them, if the anæmic theory be true. And that the more especially when we consider the ready influx of blood to their cranial cavity, in comparison with the special arrangement found to exist in that of ruminants.

The involution of the uterus is as speedily accomplished in the mare as in the cow; consequently, the aortic pressure must be equally great, and even greater, if we take into account the size of the two mammary glands and the quantity of blood going respectively to each of them.

From this it follows that if acute anæmia be induced in the way Mr. Fleming describes, and if it be the condition of the brain producing collapse, or Parturient Apoplexy, we have all the necessary conditions for its production in the mare, and in greater abundance even than in the cow. Indeed, all the conditions he sets forth as existing in the cow, and favouring its production in it—such as hyperplasia, hydræmia, the super-abundance of blood thrown back on the system by the quick contracting uterus causing aortic pressure, the high condition, and even the teleological conditions, are all present in the mare, and we do not meet with it in her.

No one can doubt or disbelieve the large array of physiological facts tending to show that a reduced flow of blood to the brain will lead to unconsciousness and loss of volition, or that epileptic attacks and spasms may arise from brain anæmia; but because anæmia of the brain will give rise to these symptoms, it does not necessarily follow that Parturient Apoplexy or Collapse is produced by anæmia, unless it be admitted that the condition of serous and sanguineous extravasation frequently found on the brain in this disease, is an anæmic condition.

If this be admitted or can be proved, it will alter very materially our views regarding the apopletic condition; for it is very generally—indeed, universally—regarded as the result of sudden pressure on the brain substance. Magendie has shown that a very slight degree of pressure on the brain was sufficient to deprive an animal of consciousness, and that the

moment pressure was removed the animal waked up again. But the lesions found in persons who die from apoplexy vary much.

Sometimes the evidently congested state of the brain during life leaves no trace visible after death; such cases have been described as "Nervous Apoplexy" (Sandras). But when one finds well-marked appearances of serous and sanguineous effusion into the brain cavity or ventricle, it is more in accordance with physiological facts to regard it as Apoplexy from pressure than from arterial anæmia.

But Mr. Fleming admits, indeed brings forward evidence to show, that anæmia can be brought about in quite a different manner, and that, according to the dictum of a celebrated physiologist, an animal "can bleed to death in its own portal vessels." For the proof I must refer you to his great work, and can only say that anæmia brought about by such conditions would be evident by the absence at all times of congestion or effusion in the cranial cavity.

Nor do we always find these even in fatal cases, or cases that would have proved fatal if allowed to live sufficiently long. If effusion were extensive, recovery would be at all times impossible; and the extent of the extravasation makes, I think, all the difference in the cases we have to treat.

Closely connected with this condition of brain anæmia is the subject of sleep and narcosis arising from the administration of chloroform and ether.

To account for these conditions of the system Mr. Fleming adopts the usually received theory of anæmia as the conditions existing in them; but this, too, has been called in question no later than last year by a Dr. Kennedy, of Dublin, in the *Dublin Journal of Medical Science*.* There he states his views, based on actual observations; he says:—"A man of middle-age, whilst drunk, had his skull severely burnt at a lime-kiln where he had fallen asleep. In a short time very urgent symptoms of pressure appeared, and he was trephined over the centre of the parietal bone. Subsequently the opening was enlarged, and the brain exposed, the dura mater having been removed to allow of free vent of pus. Whilst in this state I had the dressing of the case for several weeks, and plenty of opportunities for seeing the patient both asleep and awake, and I never saw him asleep that I did not observe marked congestion of the vessels—more particularly what seemed to be the veins—whilst all the vessels visible assumed a dark hue. And when the patient awoke, it was very interesting to observe, first, an increase in the rapidity of the circulation, and then a change in the colour of the blood, and it sometimes seemed as if new vessels, or at least some not seen before, had made their appearance." Now, these views are adverse to Durham's, and which Mr. Fleming adopts. They are that—"during sleep the brain is in a comparatively bloodless condition." Kennedy also contests the opinion of Hammond, in reference to the state of the fontanelle in infants. Hammond says—"the anterior fontanelle was always depressed during sleep, and elevated during wakefulness." But Kennedy found, during a series of observations extending over two years in the Rotunda Hospital, that whether the infants were sleeping or waking, no appreciable difference could be observed, and he could only detect a distinct elevation in two, and both these infants were crying lustily."

I must not, however, waste further time by looking into any more of these side issues; but as these states and conditions of the brain were alluded to by Mr. Fleming, to account for the symptoms observed in the disease under consideration, I thought it better to show that on them even there was very great difference of opinion, and that anæmia does not play such a part in the production of these conditions and diseases as has hitherto been

* *Dublin Journal of Medical Science*, June, 1877.

assigned to it. And further, that granting anæmia to be the physiological condition in the disease, the anatomical peculiarity existing in the cranial blood-vessels of ruminants contributes nothing towards its production—nay, rather that it tends to prevent it, by equalising the circulation, and thus preventing congestion of the organ and its consequences. It is very difficult, indeed, to see how it could bring about anæmia in the way indicated by Mr. Fleming, nor does he make it very evident how anæmia occurs at all through this arrangement.

"The following," he says, "seems to be the result of the peculiar distribution of the vessels:—1st. The circulation of arterial blood to the brain is very uniform. 2nd. Irregular pressure in the aortic system cannot easily, and then only slowly, be transmitted to the arteries of the brain. Now, however, Bidder's experiments have shown that sudden increase of blood-pressure does not produce any comatose symptoms, but that these always set in if the increased pressure is of any duration. Under these circumstances brain œdema is much more likely to set in than if the blood-pressure were to disappear quickly."

Now the question to be asked and answered here is: Where does this increased and prolonged blood pressure take its rise, and how is it sustained? It cannot certainly be in this *rete mirabile*—or an artery suddenly dividing without altering its normal dichotomous disposition, and then gathering itself up again. The effect of this is evidently to slacken the circulation, and if the *vis a tergo* be removed or weakened, this peculiar arrangement will respond in accordance with the constitution of all arteries, and which is but a physiological result of the struggle between the two elements composing the tube, the elastic and the muscular.

The increased pressure must take its rise from the heart's hyperplasia, the increased quantity of blood returned to the circulation, and the parturient state—conditions present in a greater or less degree in all animals.

Unless we suppose, for he does not avow it, he believes that the amount of blood or fluid circulating in the brain is an unvarying quantity, and that in consequence of this dilatation or diverticulum on the carotids of ruminants, the blood is held back for a time and rushes into the soft brain tissue, after the *vis a tergo* is removed, and thus produces congestion, œdema, anæmia, and death. I cannot see how the theory can be seriously entertained, for it is devoid of physiological or pathological facts by which to maintain it.

Professor Williams well and tersely remarks of the anatomical theory, that "it is upset by the fact that the disease is inseparable from domestication and stimulating food, peculiar to deepmilkers, and scarcely ever succeeding difficult parturition, which most assuredly would be the case if shortness of neck and excessive natural vascularity of the brain and its membranes, were predisposing causes."

(To be continued.)

THE CANINE RACE.

(*Continuation of Mr. Hill's address. See page* 33 *in last Journal.*)

Should not these facts, then, convince us how improbable are many of the reported cases of Rabies and Hydrophobia. Of course, the press report according to the information received, but that information is, I fear, often given regardless of the consequences that may ensue; and it would be well in any such supposed cases of Rabies and Hydrophobia, that a medical certificate on the one subject and a veterinary certificate on the other, where practicable, should be required by the press before making public—and

disturbing the peace of many—a death which may have resulted from other causes.

The brooding over fears, the nervous apprehensions consequent, in a great measure, on the absurd mania for putting nervous excitability and exhaustion, delirium, tetanus, acute insanity and the like, down to Hydrophobia, because there happens to be a *modicum* of semblance to that malady, and allowing it to go forth in sensational paragraphs, is an evil we cannot too strongly endeavour to counteract. I have no doubt, as the *Home Chronicler* observed last year, "That if all the reported cases of 'Hydrophobia' could be thoroughly sifted, and cause and effect be set in their absolutely true relation to each other, these cases would be very differently classed in the medical text-books, and the public mind would be relieved, to a great extent, of a prejudice that is a source of infinite mischief."

Near upon fifty years ago, Dr. Abercrombie warned us against :—"1. Receiving as facts statements which are not facts, but opinions. 2. We must guard against receiving as a fact a statement which only assumes the relation of facts. 3. We must not receive as facts general statements, or the generalization of facts."

Though half a century has almost passed since these words were written, as the *Medical Press* observes, "like good wine they have lost nothing by age."

The treatment of a bite is a subject I have dealt with in my work on the "Management and Diseases of the Dog," a copy of which I have presented to your library. It is scarcely admissible in a lecture of this character ; nevertheless if it is attended with benefit, I shall feel more than rewarded by giving you in a very few words my advice.

With regard to ourselves, all dog-bites, as a precautionary measure, should be treated as if they were inflicted by a rabid animal—*i.e.*, by immediate suction—followed by the application of the actual cautery or nitric acid. When Rabies is suspected, the suction should be directly followed by complete excision of the wound, performed as quickly as possible ; after which, without loss of time, the cautery or acid should be freely used. Compression above the wound, especially in the first instance, is also valuable in preventing the virus entering the circulation, and increasing the outward hemorrhage. When employing suction, the blood should be frequently spat out, and the mouth afterwards rinsed with alum-water, vinegar, or spirits.

Lastly, but not less important, all ideas of Hydrophobia should be driven from the mind as far as possible, and every means used to encourage the belief that the animal was in health, and that no suffering beyond that of a common wound was likely to follow. The same local measures, excepting the suction, which to some extent might be done with a cupping-glass, will apply to a dog bitten under suspicious circumstances.

One word as to the destruction of dogs. When from certain reasons a dog must be put to death, the most humane measure should be adopted, and this is undoubtedly chloroform. I never have recourse to any other means. It is certain, simple, painless, and not so repugnant as the gun or poison. The animal falls asleep and slumbers to death, and you have the comfort of knowing that you made the last moments of your dumb friend's life as devoid of suffering as possible.

Time will not permit me to trespass much further on your patience, otherwise I could dwell on this interesting theme for a much longer period. You who are happy in the ownership of a dog will, I am sure, continue to appreciate his sterling worth, and if there are any here who do not possess such a friend, well, some day you may, and when you do, depend upon it his welcome home will be one of the warmest you will receive.

I will close these remarks in the sincere hope that what I have said may

bear some good fruit. In advancing the claims of the "canine race" I have had a most pleasing task to perform, and I must thank you warmly for the attention you have accorded me. I confess with pride, that dogs have long been my hobby. Many interesting hours have I spent in studying their whims, instincts and ailments; and the more I have studied them, the more I have been convinced of the goodness of Providence in bestowing on man, as a special companion, such a noble specimen of a lower race.

In my daily contact with them, both in sickness and health, I have learnt some wholesome lessons—lessons of patience and endurance, of courage and truth, "give a dog a bad name and hang him," is an old proverb; but there are few dogs which deserve it. A just appreciation of all their good qualities will remove this from a reasonable mind. Apply the proverb slightly altered but in the same sense to a man, give him a bad name and he loses cast, but by zealously striving to make himself a man among men, he may outlive prejudice and hold his own. Train a dog, if his disposition is good, properly, and he will in like manner in time induce you to form a better opinion of him. There are dogs and dogs, and "a good dog deserves a good bone." How much must Lord Byron have valued such a friend, when he penned that inscription for the monument of a Newfoundland dog :—

When some proud son of man returns to earth,
Unknown to glory, but upheld by birth,
The sculptor's art exhausts the pomp of woe,
And storied words record who rest below;
When all is done, upon the tomb is seen,
Not what he was, but what he should have been:
But the poor dog, in life the firmest friend,
The first to welcome, foremost to defend:
Whose honest heart is still his master's own,
Who labours, fights, lives, breathes for him alone,
Unhonoured falls, unnoticed all his worth,
Denied in heaven the soul he held on earth:
While man, vain insect! hopes to be forgiven,
And claims himself a sole exclusive heaven.
Oh man! thou feeble tenant of an hour,
Debased by slavery, or corrupt by power,
Who knows thee well must quit thee with disgust,
Degraded mass of animated dust!
Thy love is lust, thy friendship all a cheat,
Thy smiles hypocrisy, thy words deceit!
By nature vile, ennobled but by name,
Each kindred brute might bid thee blush for shame.
Ye! who perchance behold this simple urn,
Pass on—it honours none you wish to mourn;
To mark a friend's remains these stones arise,
I never knew but one—and here he lies.

A cherished memory is, with most of us, the only monument to a lost favourite, and a faithful tribute it is to all we love. Few of us here would require the sculptor's work, which, when out of sight is frequently out of mind, to bring to our remembrance the sterling friendship and fidelity of a lost companion like the dog. Whatever the monument may be—memory or marble—what a wide contrast does it present to the "hack and hew" regard of the vivisectionist. Methinks those beings—*human beings would be a misnomer*—who select the noblest of their master's lower creation for experimental purposes, such as are adopted in this abhorrent practice, even though their excuse may be the advance of science, can have little true sympathy with or feeling for dumb animals.

In the words of Ernest von Weber, spoken before the Dresden Society "It is not science that we wish to restrain, but those who hide under the mantle of science frivolous curiosity and the mania for discovery, regardless how many thousands of highly sensitive human beings are cruelly and uselessly sacrificed." "Saddest of all," he says, "is the fact, that the favourite animal of those who slowly torture animals to death, and subject them to experiments lasting often for days and weeks, is the one which, from its touching devotion and fidelity to man, has the highest claim on his protection—is the dog, which in its nervous sensitiveness and intelligence approaches nearest to man. And what is the reason for this preference? The manifesto of the medical faculty of Zurich tells us that it is because it is the cheapest and most easily procurable of warm-blooded animals. What Plebeian coarseness! what revolting avarice is this! Apostles of science are not willing to make even the smallest sacrifices for ethical and moral considerations, whilst we are assured by eye-witnesses that poor dogs bound to the torture-trough, still show their confiding trust in man, by wagging their tails and licking the hands of their murderers, as if praying for mercy."

I think, then, I have said enough to convince you that personally I am opposed to vivisection in every sense of the word. I believe it to be demoralizing in practice, and cruel and degrading to those who pursue it.

If men would only pause to consider, before they inflict such cruelty, what absolute right they have to the animals given for their protection, and remember they are only placed at their disposal for a higher and nobler purpose, and that in Weber's words—"We owe them as living, sensitive, intelligent creatures certain duties, the least of which is not to torment them," they might abandon with repugnance the idea of vivisection.

Be assured we are each of us invested with some amount of responsibility for the welfare of all God's creatures over which we have control. The way in which we exercise that responsibility will be a matter for the hereafter. We should, therefore, strive to be a blessing to them, ever considering it a sacred duty to prevent or alleviate pain and distress in animals; by so doing we shall earn a good name among our fellow-beings, and the appreciation of those on whom our cares are bestowed—

> He prayeth well, who loveth well
> Both man, and bird, and beast;
> He prayeth best, who loveth best
> All things, both great and small:
> For the dear God who loveth us,
> He made and loveth all.—*Coleridge.*

Alderman WALKER, Chairman of the Free Library Committee, in moving a vote of thanks to Mr. Hill, said the Committee were doubly indebted to that gentleman, for not only had he given them an excellent lecture, but knowing the limited accommodation which they had in the library premises for the Saturday night meetings, and the little money which the Committee had at their disposal, and that they could not engage a larger room, he had secured the Assembly-room himself, and had undertaken to pay the whole expenses, not only of that, but also of printing and advertising the announcement of the lecture. (Loud applause.) He (the speaker) hoped the time was not far distant when a little more generosity on the part of the Town Council would place the Committee in a better position. (Hear, hear.) He believed this was the only town in England where the Town Council exacted a rental from the Free Library. The sum of £125 per year for rent took up a large portion of the library rate, and they had also a debt of £140 to wipe off, and if the Council would forego the question of rent the Committee would be able to provide a suitable lecture room—indeed it was a matter of considerable

chagrin to the Committee that they had not been able to do so ere this. (Hear, hear.)

Mr. J. PHILLIPS, who seconded the motion, referred to the kindness with which Mr. Hill had acceded to his (the speaker's) request for a copy of his work on the dog for the Free Library, and his by no means smaller kindness in consenting to deliver the entertaining, instructive, and useful lecture which they had just heard. (Applause.)

Lord DARTMOUTH, before putting the motion, paid Mr. Hill a compliment for the excellence of his lecture. He added that he yielded to no man in that room in his love for the dog. (Hear, hear.) He did not know whether this fact was owing to the fact that he was a native of this neighbourhood. Doubtless, some of them had heard the story of a native of the Black Country and his dog—for when there was anything that was supposed to be ridiculous, or brutal, or ill-conditioned, it was always fathered on the Black Country. (Laughter.) The story was that a father went home and asked the mother, "What's become of the milk?" and she said she had given it to the child, whereupon he replied, "Thee shouldn't have given it to the child; thee should have given it to the pup." (Much laughter.) He did not mean to say that he (Lord Dartmouth) should be prepared to go so far as that—(renewed laughter)—but he would say that he considered that anyone who could not appreciate the affection of a favourite dog had something very deficient in his or her character. (Applause.) In Eastern countries the dog was spoken of in terms of reproach, but he was glad to say that such was not the case in this country, as he was here considered what he really was—a very noble animal. (Hear, hear.) They heard sometimes the phrases "savage dog," which was not altogether complimentary, and "ugly dog,"—(laughter)—but when it was said a man was an "ugly dog," the expression generally meant that although he might not be extremely beautiful he had inwardly a great many graces which atoned for his looks. (Applause.) He could detain them to a considerable length with anecdotes of some of his departed canine friends, but he would only mention one little incident which showed him that the dog had even a sense of patriotism in him. He had once a dog which considered itself as attached to the volunteer corps under his (Lord Dartmouth's) command, and he remembered that one occasion, when the band was out with the corps, the dog came out also to assist at drill, in which he, no doubt, thought he played a very important part. (Laughter.) One of the bandsmen had brought with him his little boy in plain clothes to carry his cape. This the dog resented as an insult to the corps and the uniform, and he never saw him so angry as he was when the boy had the audacity to march with the company. (Laughter.) He (Lord Dartmouth) thought there was something very creditable on the part of the dog in that, although the boy at the time was not of that opinion. (Laughter.) They would pardon the feelings of one who was so deeply attached to that dog—which was, alas! no more—for having digressed in the manner of an anecdote. He thought Mr. Hill had laid before them the whole subject in a lucid and admirable manner. (Applause.) He agreed with Mr. Phillips that the poem of Lord Byron (whose epitaph on a Newfoundland dog the lecturer had quoted) was not quite creditable to Byron's own character. His affection for his dog was creditable, but he agreed that if Byron had shown more affection to his fellow-men and fellow-women, it would have been better for himself and for posterity. (Applause). With regard to the resolution, he might say he was personally thankful to Mr. Hill, and he did not think they could have spent the evening better than in listening to such a lecture as that just delivered. He trusted that they would shortly have better premises than they had at present at the library for these lectures. He hoped to be able to add something to their museum, and he should be glad at a future time of an opportunity to attend another

of these Saturday evening lectures, and in some other way to render them assistance. (Applause.)

The vote of thanks was passed with great heartiness.

Mr. HILL, who was greeted with prolonged applause, said he begged to thank them most sincerely for their appreciation of his efforts that evening. It had afforded him no small amount of pleasure to know there were so many in his native town of Wolverhampton who took such an interest in the subject he had brought before them, and it had also afforded him the highest possible pleasure to be honoured with the presence of those who exercised such a great though gentle influence on all their actions, viz., the ladies who had been present with them that evening. In the treatment of his patients he always maintained that good nursing was half the battle, and if it were not for the assiduous attentions of the fair owners of most of his canine sufferers, he should be far from the successful veterinarian he was. He begged, therefore, to especially tender them his best thanks. He also could not, before sitting down, fail to express his deep appreciation of the honour that had been conferred on himself personally, and all who represented the Free Library, in the kindness of the Earl of Dartmouth in presiding on that occasion—a memorable one so far as he was concerned, inasmuch as it was his first attempt at a public lecture in Wolverhampton. He could only assure them if such subjects as the one he had dilated on that night was of sufficient interest to merit their approval, it should not be his fault if it was the last. He felt his efforts were undeserving of the flattering remarks which had been made,—flattery though he would rather not call it, for he took them as the highest compliment that could be paid to a lecturer. He could assure them they would act as a stimulus to him in the future, and though on this occasion he had done his best he would try on the next to do still better. (Loud applause.)

On the motion of Mr. A. C. Pratt, seconded by Mr. J. O. Lee, a vote of thanks was passed by acclamation to the noble Chairman, and Earl Dartmouth, in acknowledging the compliment, said it had been suggested that he should give them a lecture on sheep, but he was afraid that would be a very dry and technical subject. However, he was not capable of making a promise in that direction, but he hoped to help the Free Library, if not by his voice, by some contribution that would be acceptable. (Applause.) And now, as "the dogs" had had an evening with them, let them hope they would be spared to have many another evening with "the dogs." (Laughter and applause.)

PATHOLOGICAL SOCIETY OF LONDON.

DIPHTHERIA *versus* MILK.

AT the meeting of this Society, held on January 7th, Dr. C. Murchison, President, in the chair,

Dr. BUCHANAN read a paper communicated by Mr. W. H. Power upon certain observed relations between Diphtheria and Milk, remarking that when it was remembered how much the etiologists owe to the pathologists in the elucidation of disease, he could not but think that the pathologists would value in their turn any suggestions for further research furnished by the etiologist. The present note was the outcome of Mr. Power's research into the recent epidemic of Diphtheria in North London, where it was proved beyond a doubt that the disease had a distribution corresponding to the distribution of a particular milk; and, so far as it is possible, it has been demonstrated that in this instance the milk was the cause of the Diphtheria. But how did the milk become capable of distributing the infection of the Diphtheria? Here an interesting fact came out in the course of the inquiry,

for it was found that the milk-supply came from two sources, one from cows kept at Muswell-hill, and the other from some at Kilburn, both sets belonging to the same owner; and whereas at one period of the epidemic the potency to do harm seemed to come from the Muswell-hill source, and not from the Kilburn, yet later on there was, as it were, a transference of such morbific agency; so that afterwards it was the Kilburn milk alone that appeared to have relations with the infection. No external conditions could be found to account for this, and the conclusion appeared to be forced on the mind that in some condition of the cow as cow, and of her milk as milk, is to be found the possible source of the morbific agent. The history of other milk-epidemics was considered in this connexion. First, as to Enteric Fever. In many instances in which a relation has been traced between milk distribution and Enteric Fever there is no doubt of the disease being due to the dissemination of milk contaminated by impure water or air. There are other examples where such introduction of water or air has been but obscurely made out, whilst there remains a third class where the intervention of infected air or water has seemed unlikely, and where the readiest explanation of the outbreak would be afforded, if milk, apart from air or water contamination, could be regarded as the source of the disease. In other words, supposing that milk *per se* were able to produce Enteric Fever, the observed facts of such epidemics would tally better with the hypothesis of direct infectiveness of milk rather than with the intervention of water or air. In Scarlatina there are instances of milk epidemics in which the facts are such as to suggest that some condition of the milk alone is capable of producing the disease. In Diphtheria, in the epidemic just mentioned, no support is given to the hypothesis that any antecedent human cases are necessary for the origin or propagation of the disease. As to the probability of such contagious diseases being communicable from animal to man, Mr. Power points out that already we know of several diseases in the cow capable of infecting the human subject. There is Vaccinia *ejusdem generis* with human Small-pox, which can be produced in the cow by inoculation with Small-pox matter, but which in the cow is a comparatively harmless disease, and not having the properties of human Small-pox, for Vaccinia in the cow does not tend to spread in the air from cow to cow; it affects the udder and does not appear to influence the milk secretion. There is the "Foot and Mouth" disease, which affects the milk secretion to a certain extent, and gives rise to aphthous affections and disturbances of the stomach and bowels among consumers of the milk. Then there is miliary tubercle of the cow. Animals consuming the milk of tubercular cows have been known to get tubercle; and possibly this may be true of man also. The Anthrax Fever is known to communicate an analogous disease to persons eating the flesh of cattle which have died from its effects, and a throat disease among pigs that have been fed on it and on the milk. Lastly, if an instance of a parasitic disease may be taken which, comparatively harmless in the quadruped, is of serious import in man, the case of Trichinosis may be cited. With such instances in mind, there appears to be *primâ facie* ground for considering whether Diphtheria may not be produced in man by the ingestion of milk contaminated and altered by some condition of the animal itself; and the question naturally arose, whether, for instance, in the North London epidemic any particular disease prevailed among the cows furnishing the milk, and, if so, whether such disease were specific or not? Whatever it is, it must be an affection which disturbs but little the general health of the animal, whilst affecting the quality of the milk. "Garget" is the trivial name given by cow-keepers to a disease which at times affects milch cows. It is an affection of the udder, and it attacks usually one or two, seldom all four, quarters of the udder, being accompanied by swelling of

the part and by the discharge of blood-stained milk from the teat or teats, with subsequent discharge of ropy fluid and blood. But the quantity and quality of the milk yielded by the sound quarters of the same udder are not altered. It was said to lead to no obvious effects in the animals, but Mr. Power was only able to glean information from non-medical witnesses.* He also learnt that there was another affection of the cow, characterised by the admixture of blood with milk, without decided affection of the udder. The period of the inquiry into the North London epidemic, when he had learnt the above facts, was too late to test their application in that instance, and his inquiries of the owner of the dairy in question served only to show to him that the cows might suffer from "garget" without the owner hearing of it, the affection being regarded as so trivial a one. Mr. Power's note concluded by pointing out that in "Garget" we have a disease which can pass unobserved in the cow, and yet possibly it may have relations with human Diphtheria, and it was therefore worthy of further study.—The PRESIDENT, after alluding to the importance of encouraging the study of diseases of the lower animals, said that he could thoroughly endorse Dr. Buchanan's statement as to the connexion between milk and the epidemic of Diphtheria in North London, having been made out by Mr. Power in his report. The subject of the communication of diseases in animals to man had always been to him of deep interest; and he would cite Hydrophobia of man as being another instance in which the human disease differed in its clinical course from the same affection—Rabies—in the dog. On the occasion of the Marylebone Epidemic of Enteric Fever from milk contamination five years ago, some people started the notion that possibly it was not due to the admixture of contaminated water, but was dependent on some disease of the cow. For his own part, he was firmly convinced that then it was due to the water, and it was quite new to him to learn that Enteric Fever might originate in a cow.

Mr. A. H. SMEE then read a paper upon Garget, having been led to inquire into the subject from Mr. Power's conclusion after his investigation into the North London epidemic of Diphtheria, that the outbreak was connected with the milk supply, but that there was no evidence to show that the milk was contaminated after it left the cow; and he wished to know whether there existed any form of disease among cattle which, although capable of fouling milk, produced so little constitutional disturbance in the animal that the disease might escape the notice of dairymen. Mr. Smee found on inquiry, that a condition of ropy milk connected with a state of the udder, in some districts called "Garget," was of such a nature. So lightly is it regarded among dairymen that Mr. Smee found, when making experiments for his work on milk, that his own bailiff, who was engaged in collecting specimens of milk of diseased animals in the district, did not think it worth while to call Mr. Smee's attention to cases of it which were occurring among his own cows. Nor was it much known to veterinary surgeons, as the cowmen treat the disease themselves, and frequently do not inform their own masters, believing that their own ill-treatment or carelessness in milking may be the cause of the disease. The quality of the milk is, however, greatly altered, so as to spoil for "setting" a large quantity with which it may be mixed; but when used for immediate consumption it is very probable that dairymen would not detect any change in it. Mr. Smee then read the answers forwarded to him from different parts of England and Wales to the series of questions he had framed bearing on the affection, which it is impossible here to give in detail; and then proceeded to state that it was obvious from these replies that under the generic name of Garget there are more than one form

* [In our next issue, we shall have some comments to offer with regard to Mr. Power's and Mr. Smee's papers, in their relation to Veterinary Science. ED. *V. J.*]

of disease. First a Garget referred to traumatic origin from blows on the udder, or pressure on it, or rupture of a vein in stock-making—*i. e.*, leaving milk in the udder for twenty-four to forty-eight hours, in order to enhance the value of a cow for sale. Probably the larger number of cases of ropy milk arise from this cause. Calves fed upon the milk of this kind of Garget do not appear to be affected in general health. Secondly, a form of Garget produced by cold, which runs an acute course. It does not appear to affect the general health of the animal, or the health of pigs or calves which may be fed with the milk. Thirdly, a form which occurs less frequently, and is possibly of a specific nature. This form not only appears to affect the general health of the animal (as in one case, where a cow had loss of power on the side of the affected quarter), but it also seems to affect the milk in such a way that it may injure the health of calves. An analysis of milk from the affected quarter of a cow stated to have ruptured a vein in stock-making yielded—total solids, 11·97 ; fats, 2·95 ; non-fatty solids, 9·02 ; ash, 0·62. And, although distinctly coloured, as from blood, no blood corpuscles could be found under the microscope, but only particles of bone-colouring matter of indeterminate nature. Another specimen, supplied by Dr, Jacob from a cow suffering from some form or other of Garget, yielded—total solids, 11.7 per cent. ; fat, 2·5 ; non-fatty solids, 9·2 ; ash, 0·76 ; and the microscope revealed nothing abnormal. Such milk would have been passed as good milk by a public analyst, but at the same time the cow from which this specimen was taken had passed through the acute stage, when probably the milk was more altered. It is a coincidence of great importance, upon which Dr. Jacob would write, that when Diphtheria broke out at the Princess Mary's Home at Woking, this Garget existed in the farm which supplied the Home with milk. The chain of evidence connecting Garget with Diphtheria is at present altogether incomplete. Mr. Smee concluded : "Considering the universal employment of milk as an article of food by all classes of society, I have thought it desirable at once to bring under the notice of this Society my researches on Garget, because a thorough investigation of milk in disease would, I venture to believe, reveal many facts of importance to the health of the human subject. It is, however, an investigation that would be surrounded with great difficulties. It would require many observations to be made in different localities under varied circumstances, besides requiring the expenditure of much scientific skill and money. A thorough investigation would be far beyond the means of any private individuals, and perhaps beyond the resources even of our scientific societies ; and the subject promises,I think, to be one of sufficient importance to deserve inquiry by Government."

The PRESIDENT remarked that, even if time permitted, it would be difficult for the Society to discuss the novel questions so ably brought before them. Much valuable information might be gained by appointing a committee to investigate the nature of "Garget," as well as the chemical and microscopical characters of the milk secreted by the affected gland. The Brown Institution would afford facilities for such research, and he begged to nominate the following gentlemen to serve on such a committee :—Dr. Buchanan, Dr, Sanderson, Dr. Greenfield, Mr. Smee, and Dr. Coupland.

HIGHLAND AND AGRICULTURAL SOCIETY.

AT the Annual General Meeting of the Highland and Agricultural Society of Scotland, held on January 15th, Captain Tod, of Howden, as Chairman of the committee in charge of the Society's veterinary department, had reported that the Society's petition to her Majesty the Queen for a national charter for Scotland, empowering the Society to grant veterinary diplomas, had been refused. The committee, believing that the veterinary profession is opposed

to the Society's application, were recently reluctantly constrained to recommend to the directors that the Society's veterinary examinations should be suspended. Due provision will, however, be made for carrying on the examination of persons already admitted as students of the Society who may hereafter elect or claim to be examined by the Society's examiners, in preference to submitting to examinations by the Royal College of Veterinary Surgeons. These parties will also be admitted members of the Royal College on payment of certain fees, and without submitting to further examination. Captain Tod said: "I cannot conclude without recording that, in my opinion, justice has not been done to the Society. When lectures were established by the Society in 1823, the veterinary art was very imperfectly understood in Scotland. The establishment of the Edinburgh Veterinary School was the means of obviating this serious evil, and above 1,100 students have, during the last 55 years, passed the ordeal of a strict examination, conducted under the direction of the most eminent men of the medical faculty, and also of distinguished veterinary surgeons. These advantages have been secured to the public without having ever drawn upon it for assistance or support, the Society having never asked or received one farthing of public money on behalf of its veterinary department, but expended a large sum from its own funds. There are at present in Scotland no fewer than four universities qualified to confer degrees in medicine, and it was surely, therefore, not unreasonable to ask that a similar right should be granted to confer veterinary diplomas. Whether the suspension of the Society's examinations may turn out disadvantageous to Scotland and the veterinary profession remains to be proved: but under the circumstances I have now detailed, the directors considered it mpossible to continue to grant certificaties."

MONTREAL VETERINARY MEDICAL ASSOCIATION.

THIS Association held its regular fortnightly meeting in the lecture-room of the College on December 5th, at the usual hour, the President, Principal McEachran, in the chair, with a full attendance of members.

Mr. J. J. MILES, of Charleston, Illinois, read a very instructive, interesting, and original paper on Ovariotomy, fully describing the reasons for its performance, as well as the details of the operation. One important object to be gained by the operation in cows is the perennial secretion of milk; and as the operation is attended with little or no danger in the hands of a skilful surgeon, Mr. Miles strongly recommends this fact to the notice of dairymen, that it has been successfully proved by Mon. Charlier, a veterinary surgeon, of France, that the aggregate amount of milk yielded in the year is nearly double in cows operated upon.

A very lively discussion followed, the majority of the members present agreeing with Mr. Miles, that much may be gained and very little incurred by the more general instructions of its practice in this country. The operation is attended with very beneficial results in the case of sows, making them easier fatted and greatly improving the quality of the meat.

Mr. M. S. BROWN, student, communicated a very interesting case of Paralysis of the Lips in a Horse, caused by halter-pulling, saying this affection, although apparently very simple, is really very difficult to treat but easy to diagnose, being characterized by a pendulous condition of the lips, the lower being the one most frequently involved. He maintained that no time should be lost in having such cases properly attended to.

At the next meeting Dr. BELL, Assistant House Surgeon at the General Hospital, and Professor in Materia Medica, will read a paper on Antiseptic Surgery.

Mr. P. CUMINS will communicate a case of Navicular disease.

The President was authorized to purchase as many new books for the library as the funds in the treasury would allow.

Jurisprudence.

(THE following case, which I extract from the columns of the *Stirling Reporter*, will, I trust, be deemed worthy of a corner in the VETERINARY JOURNAL, so that a permanent record may be made of a decision so important to veterinary surgeons who keep shoeing forges.

GEORGE MORGAN, F.R.C.V.S., Hon. Sec.
National Veterinary Benevolent and
Mutual Defence Society.)

STIRLING SHERIFF COURT.

INTERESTING CASES TO FARRIERS AND CARRIERS.

M'NICOL *v.* WAUGH.

This was an action for £45, being the price of a horse which was so injured that it had to be killed. The horse, which was a vicious one, was put in the "stocks" to be shod, and while there behaved in such an unruly manner that it fell with its back broken, or, as the pursuer alleges, while it was trying to rise in the stocks it pressed against the cross-bar which, it is further alleged, had been negligently left in by the servants of the defender. The pursuer is a horse-dealer in Glasgow, and the defender a veterinary surgeon in Stirling. The defender alleges that he was not told that the horse was vicious, at least he was not told that two unsuccessful attempts had been made to shoe the horse before it was brought to him, and generally that it was of such a vicious nature as to be beyond his or his servants' control, and that he was not responsible for the accident of its death. Proof of the facts was led, and the Sheriff after making avidzandum has issued the following interlocutor and note :—

Stirling, July 12th, 1878.—Having heard parties' procurators on the proof and whole process, and made avizandum : Find (1) that, on Saturday, 17th March last, defender, who is a blacksmith, received a horse, the property of the pursuer, and undertook to shoe him : (2) That said horse was rising five years old, had never been shoed, handled, or broken to harness, and was vicious and intractable : (3) That attempts had been made to shoe said horse by two different blacksmiths during the same week without success : (4) That it is not proved that pursuer made defender aware of this circumstance, but merely told him that the horse was "fashious :" (5) That defender's foreman and assistants attempted to shoe the said horse in the usual way without success : (6) That, accordingly, he was placed in the "stocks :" (7) That placing a horse in the "stocks" is the usual and proper method of controlling an intractable horse while he is being shoed : (8) That the "stocks" used in this instance were of the usual and common character, were in good order, and suitable for the purpose : (9) That, while in the "stocks" the said horse plunged violently and repeatedly, and that the canvas sling was broken by his struggles : (10) That said horse sustained injuries while in the "stocks," which made it necessary that he should be destroyed : (11) That it does not appear whether these injuries were the result of strains caused by severe muscular exertion, or were occasioned by the struggles of the horse to rise, but that it is proved that they were not the result of the fall of the horse to the ground after the breaking of the canvas sling : (12) That the defender and his servants displayed neither negligence nor want of skill in their treatment of said horse. In these circumstances, sustains the second plea in law stated for the defender, assoilzies him from the conclusions of the petition : Finds him entitled to expenses of process, allows an account thereof to be given in, and remits the same, when lodged to the auditor of court, to tax and report and decerns. (Signed) J. R. BUNTINE.

Note.—This seems to the Sheriff-Substitute a case in which it is not necessary for him to say much upon the evidence. It is clear that the horse was intractable and violent, and it is probable that many efforts had been made to shoe it, without success, before the two futile efforts made in Broomage and Falkirk. In these circumstances it was the duty of the pursuer to have mentioned to the defender that the horse had been in the "stocks" on a previous occasion, and that, even with their aid, the blacksmith had been unable to shoe him. This would have put defender thoroughly on his guard. But it does not appear that he had this information, although pursuer and Mr. W. Gilchrist both think that one of them mentioned to the foreman, Walls, that they had tried to get the horse shoed at Broomage and at Falkirk. The duty of the defender was to apply suitable machinery in good condition, and to show that his foreman and assistants used every reasonable care and skill. The Sheriff-Substitute thinks that it is clear on the proof that the machinery used by the defender was suitable, and was in good order, and that his servants displayed no want of skill or care. The most important point in this case is the breaking of the canvas sling. That sling was not used for the purpose of suspending the horse, but merely to prevent him throwing himself to the ground. The sling has been preserved by the defender, and was produced. It is proved that the canvas is in good order, and was suitable for its purpose. In the whole circumstances, the Sheriff-Substitute thinks that the defender has done everything that the law imposed upon him. The death of the horse was an unfortunate accident, for which no one is to blame, and the loss must fall upon the owner. (Intd.) J. R. B.

This case, it will be remembered, was decided in July last by Sheriff Buntine in favour of the defender, and on an appeal against that judgment Sheriff Gloag has just issued the following interlocutor and note :—

Edinburgh, 19th August, 1878.—The Sheriff having resumed consideration of the cause recalls the eleventh finding in fact in the Interlocutor of the Sherift-Substitute, 12th July, 1878, *quod ultra* adheres to the said interlocutor. Finds the defender entitled to additional expenses, appoints an account thereof to be added to the account of the defender's expenses already allowed to be given in, and remits the same to the auditor of court to tax and report and decerns. (Signed) W. E. GLOAG.

Note.—The Sheriff has recalled the eleventh finding in fact in the Sheriff-Substitute's interlocutor, because he does not think it essential to the judgment in favour of the defender, and because he has not been able to adopt the proposition that it is proved that the injury to the horse was not the result of the fall after the canvas band broke. The injury occurred just about the time when the band broke, and the Sherift does not think that the evidence warrants any very confident opinion as to whether it was caused by the violent plunging of the horse before it fell, or by his fall, or by his efforts to rise after he fell. The whole thing occurred within a very short time, and it does not seem wonderful that the precise minute of time when the injury happened could not be very exactly observed. The Sheriff is, however, inclined to the opinion that probably the injuries would not have happened had the band not given way, and that it may with reasonable probability, though not with certainty, be referred to the breaking of the band. He could hardly have assoilzied the defender on the ground that the injury was unconnected with the breaking of the band. Had the horse not been extremely violent the Sheriff would have felt great difficulty in deciding for the defender, and in that case he might probably have been of opinion that the band was defective and that this was the fault of the defender and that he was liable. The extreme violence of the horse, however, makes all the difference, for the band may have been burst in con-

sequence, although it was perfectly sound, and the Sheriff adopts the opinion of the Sheriff-Substitute that it was proved to have been so. The point no doubt is debateable; but he thinks that that is the fair result of the whole evidence. The Sheriff had not the advantage which the Sheriff-Substitute had of seeing the band. The Sheriff also holds that the pursuer has not shown that he sufficiently warned the defender of the character of the horse, and he thinks that his failure to do so interposes a great obstacle to his success in the action. The Sheriff thinks that the fair result of the proof is that the death of the horse was caused mainly by accident, although the accident was a very common one. He is unable to find that any blame in the matter attaches to the defender, but he thinks the pursuer not wholly free from blame in having neglected, as the Sheriff thinks he did, to put the defender sufficiently on his guard. The cases of Binning *v.* Bean, 16th July, 1679, M. 100, 79, Marquis *v.* Ritchie, 11th June, 1823, 2 S.D. 386, and Pullars *v.* Walker, 30th July, 1850, 20 D. 1238, quoted by the pursuer's procuraior, do not appear to the Sheriff to be in point. They were cases when horses suffered injury when on hire. But the Sheriff does not see his way to apply these cases to the present, which belongs to a totally different legal category. This is a case where the pursuer hires the skill and labour of the defender, and where, in the course of the operations which the defender undertook, the injuries occurred. It seems manifest that the only grounds on which the defender could be held liable would be his negligence or such want of skill as in law amounts to *culpa*, agreeably to the maxim *imperitia culpae annumeratae*, and if this had been a jury trial, there is no reason to doubt that the pursuer must have put in issue the fault or want of skill of the defender. If a coachman is employed, and the carriage he drives be overturned, or if the services of a hired surgeon or doctor, he could be made liable only on the ground of negligence or of want of skill. Their vocations are subject to interference of accident, and they cannot be held to guarantee success. No doubt there are many cases in which the mere fact of injury may be *prima facie* proof of fault, as would have been the case if the breaking of the band did not naturally fall to be accounted for by the violence of the horse, there are many cases in which the failure of a tradesman or a professional man to do what he undertakes cannot possibly be attributed to anything but his fault, and there may be cases in which fault must be regarded as the more probable cause of injury; but the present case does not appear to the Sheriff to fall within these classes. The case of Hinshaw *v.* Adam, July, 1870, 8 M'P. 933 was quoted for the pursuer, and it certainly appears to have a nearer resemblance to this case than the other authorities quoted. There finishers were held liable for injury to goods which they had undertaken to calendor. That case regarded an operation to certain goods involving a well-understood risk of injury, and the defenders seem to have been held to have undertaken that risk. But the Sheriff thinks that case differs from the present, where so much depended on what was to a large extent capricious and incapable of being foreseen—namely, the extremely unruly behaviour of the horse. The horse was not hurt by the operation of shoeing, but by an accident which happened while that operation was being performed or attempted. Besides, had it appeared in the case of Hinshaw that the goods were defective within the knowledge of the pursuers, that the defects were latent and had been pointed out to the defenders, and had probably given rise to the injury, there is reason to think that the defenders might have escaped liability. Now, that is the nature of the present case if the view of the evidence taken by the Sheriff-Substitute and Sheriff be correct. The case of Gloar *v.* the Western Railway Company, 28th May, 1872, L.R.C., p. 665, referred to in the argument for the defender, appears much in point. In that case a railway company who had undertaken the carriage of

a bullock were held not liable in damages on account of its escape from the truck in which it was put, and death, it having been proved that the carriage were sufficient for ordinary purposes, that no negligence was chargeable against the railway servants, and that the escape and death of the bullock were due to the intractable character. On the whole, though the Sheriff feels the case to be narrow and difficult, both as regards the evidence and the law, he has formed a distinct opinion in accordance with that of the Sheriff-Substitute. (Intd.) W. E. G.

Obituary.

THE following deaths have been reported to the Registrar of the Royal College of Veterinary Surgeons during the past month, by members of the profession resident in the localities where the deceased have been in practice :—

			Diploma dated.
Mr.	Thomas Duncalf	late Newport, Salop . .	Nov. 22, 1831.
„	Michael P. Dolan	„ Cashel, Tipperary .	April 15, 1869.
„	G. Doyle	„ Kildare . . .	July 4, 1837.
„	Jas. Spencer	„ Stoke-Ferry, Norfolk .	April 6, 1837.
„	Wm. Howlett	„ Fakenham . . .	July 28, 1828.
„	Samuel Brown	„ Melton Mowbray. .	May 15, 1823.
„	Geo. Stowe	„ Warwick . . .	June 4, 1845.
„	Robert Stewart	„ London . . .	April, 1870.

Also, in the 53rd year of his age, Mr. Gilbert Heyes, F.R.C.V.S., Hatton Garden, Liverpool. His diploma bears date May 1, 1856.

Notes and News.

CATTLE PLAGUE.—The continued spread of the Cattle Plague in Prussia is causing grave anxiety. The Berlin papers state that the disease "has assumed enormous dimensions." Within a fortnight of its first appearance no less than twenty-six districts were declared infected, and many hundreds of cattle, together with some few sheep and goats, were compulsorily slaughtered. At Stallupönen, where the first outbreak occurred, more than a hundred beasts were shot in the course of a week, and as it was found impossible to dig graves for the carcases, they were thrown into a disused gravel pit on the outskirts of the town, and then covered over with earth. The farmyards under sanitary supervision are guarded by the military, and a picket of soldiers is constantly on duty at the gravel pit to prevent any attempt to disinter the bodies. The little town itself is sadly disturbed by this untoward occurrence, and many families whose members have been in contact with suspected cattle are absolutely obliged to confine themselves to their houses for fear of spreading the contagion. Over a considerable length of the frontier the introduction is absolutely forbidden of cattle of any kind (except horses), of any parts or products of ruminant animals, whether fresh or dry, except butter, milk, and cheese ; of all manure, fodder, straw, and all stable utensils or harness that have been used ; of manufactured wool and hair, and of worn clothing and rags. Persons whose business brings them in contact with cattle, such as butchers, cattle dealers, and their servants, may only cross the

frontier at one of two stated places, and at these must be subjected to measures of disinfection under the supervision of the veterinary surgeon on duty. Altogether, from the commencement of the disease on the Polish frontier to the issue of the last report, the losses have included 1,862 head of cattle, 1,025 sheep, and 238 goats. It may be remarked that the number of sheep and goats slaughtered is not to be taken as the number attacked with the disease. On the contrary, in most cases the animals are healthy, but they are slaughtered in consequence of being on premises in which diseased cattle are or have been standing. The introduction of the disease has been clearly traced to some Russian cattle smuggled across the border in defiance of existing sanitary regulations, and public indignation is loud in condemning the dealers who, in pursuit of their own selfish ends, have brought such a calamity upon their country. A rigid investigation has been made into this matter, with the result of discovering an active connection with the smugglers in quarters least suspected, and a very large number of arrests have already been ordered. Complaints are also rife that, though the law provides penalties up to five years' imprisonment for offenders convicted of contravening the regulations against cattle smuggling, the heaviest punishment as yet inflicted has not exceeded three months' confinement, and it is argued that such mistaken lenity has done much to encourage the continuance of the system, when the adoption of sterner measures might have effectually repressed it. The profits in this smuggling business are so enormous that the risk of a possible three months' loss of liberty is readily run. A suggestion has been thrown out that as the capitalist engaged in this nefarious business must be assisted by humbler companions, who get but a few shillings and a little liquor for their services, it might be advisible to tempt these latter to turn informers by offering a reward of five pounds or so on conviction of the prime offenders in respect of each beast that can be proved to have been smuggled in. As a first unwelcome effect of the outbreak, Belgium has absolutely prohibited the importation of beasts of German origin within her frontier, as also their transit through her territory. Austria has also been invaded, and has prohibited the importation of cattle from Roumania on account of the prevalence of Cattle Plague in that country. Rinderpest is reported to be very prevalent in the Presidency of Madras, where many cattle are kept.

KHARKOFF VETERINARY SCHOOL.—We learn that this Russian School has been broken up, in consequence of a semi-political *émeute* among the students, and which has become extended to those of several Muscovite Universities.

FRENCH ARMY HORSES.—The number of horses required for the French army on a war footing is, according to the *Journal des Sciences Militaires*, 210,700, distributed as follows:—Infantry, 10,000; Cavalry, 90,000; Artillery, 50,000; Engineers, 900; Transport, 45,300; Gendarmerie and non-regimental troops, 10,000; officers and officials, 4,500. As during peace only about 113,000 horses are available, *circa* 99,000 have to be provided, this number being supplemented to a great extent, as far as draught animals are concerned, by mules.

VETERINARY SCIENCE IN FRANCE AND BELGIUM.—Medical Universities having been established at Lyons and Toulouse, Professor Chauveau, Director of the Lyons Veterinary School, has been elected to the chair of Comparative Pathology in the first-named University, and Professor Toussaint, of the Toulouse Veterinary School, to the chair of Physiology in the University of that city. Professor Wehenkel, of the Brussels Veterinary School, fills the chairs of Morbid Anatomy and Comparative Pathology in the Brussels University.

Correspondence, etc.

PRIVATE PRACTITIONERS AND THE ARMY VETERINARY DEPARTMENT.

To the Editor of the VETERINARY JOURNAL.

DEAR MR. EDITOR,—It was my intention to have allowed my letter which was written upon this subject to rest; but I have received a letter this week from a member of the profession who resides in England, approving of the remarks made by me, and at the same time declaring that he had been attending some army horses very recently, and had been paid only two-thirds of his claim. It is high time that some understanding should be arrived at between the Veterinary Department and private practitioners. It appears to me that the question assumes a serious character now, because the system of taxing, or cutting down, has become general, if not universal. I, for one, can positively assert that when cavalry detachments or squadrons are located in a town, the supply of medicine in stock is of the most meagre and absurd description. This remark does not apply to the Ordnance Department, as a veterinary surgeon is usually attached, and a pharmacy connected with the barracks. It is so here! Should the Royal Artillery veterinary surgeon be absent on leave, and he has named a private practitioner to act as *locum tenens*, and his attendance is required at the *cavalry* barracks, the Artillery veterinary surgeon must recoup his friend, the private veterinary surgeon, for all such medicines which may be supplied to the troop horses of a cavalry squadron. This, to my mind, is "*hard lines*," and it is still harder lines when the private veterinary surgeon has to supply the needful, and pay car-hire when making visits. This has happened to myself occasionally. The matter may be looked upon as a frivolous one, and it passes out of the mind of the Army veterinary surgeon, especially as his removal now and then takes place hurriedly; and the deputy does not think it worth his while to make a formal application for medicines supplied, or shillings paid to "jarvies." As a rule, a Government appointment is worth obtaining, but if an unfortunate individual happens to act the friend to a professional brother, the chances are the friend is a loser. It may be questioned whether my remarks are well founded; but it must be distinctly understood that I refer especially to cavalry, when the troop horses are located in a town having a "battery," and its veterinary surgeon attached.

There is almost as much difficulty in getting money out of the Government purse as there would be in bleeding a turnip! I am of opinion that the Veterinary Department should be liberal to private practitioners, and it would be a compliment to its own staff. As things are now conducted, I think the profession is not appreciated as it deserves by the head of the Department.

When a Poor-law doctor goes away on leave, his deputy is paid at the rate of three guineas a week for his services, while the medicine required is found by the Union. I do not mean to compare horse-doctors with those of the human family, but I am free to think there is but small difference between them as *men*, and I could cite many instances where the horse-doctor is the superior in every sense. However, I have been digressing. I have stated some facts which are discreditable to the Veterinary Department, and the sooner a reform takes place, the better.

Yours faithfully,

R. H. DYER, M.R.C.V.S.

Limerick, *Dec. 11th*, 1878.

PARTURIENT APOPLEXY.

To the Editor of the VETERINARY JOURNAL.

SIR,—In an essay by Mr. Gerrard on "Parturient Apoplexy," read before the Liverpool Veterinary Medical Association, he says that some members and a fellow of the R.C.V.S. recommend not milking the cow for a day or two after calving, they considering the disease a result of weakness.

I, for one, certainly recommend the udder not to be emptied, but always advise that the calf be allowed to remain on the cow (a fact Mr. Gerrard seems to forget), or that the udder be partially relieved.

This practice is not due to such an absurd theory as he charges us with, viz., debility; neither I, nor any M.R.C.V.S. that I know of, who adopt this course, have ever said such a thing.

Before Mr. Gerrard again accuses any member of ignorance, I hope he will be more careful that what he states is correct.

I am, Sir,

Yours truly,

J. MACKINDER, F.R.C.V.S.

Peterborough, *January 14th.*

OUR FEES.—HONEST COMPETITION.

To the Editor of the VETERINARY JOURNAL.

DEAR SIR,—As a practitioner in the vicinity of London, and who in all probability may be affected by the practices described by Mr. Thomas Moore in your last and former journals, as having taken place at what is sometimes termed the *Alma Mater* of the profession, viz., the Royal Veterinary College, London, you may perhaps permit me to state my opinion regarding these practices, as also my experience of the *Alma Mater*, and its so-called professors.

The practices described by Mr. Moore, and which have not even been denied, far less disproved, by any one responsible for them, are simply detestable, and degrading in the extreme to all those who practise or sanction them. This establishment is neither more nor less than a huge co-operative horse-doctoring store, where the wealthy but pecunious are privileged to deal—not on the principle of honest competition, but on the lowest and meanest propensity of human nature, the desire to appear great at a cheap rate. It says little for the courage of the Metropolitan practitioners, that this lumbering leviathan of a horse-doctoring store should have been allowed to exist on such conditions, and for so long, in their midst. Surely Mr. Moore and his "several members" will not allow this subject to drop, until they have brought the moral force of the profession to bear upon the upholders and perpetuators of such an unbusiness and abominable system.

My personal experience is rather different to that recorded by Mr. Moore, or as shadowed forth by the professors in their advertisements in their own organ, the *Veterinarian*. It is this. Having been engaged in a law case which went against the weight of evidence, the owner of the animal in question requested me to take it to the Royal Veterinary College—there is something magical in the word *Royal*, especially in London—for an opinion as to its soundness, so as to be able to procure a new trial. I did so. Before any of the professors would give an opinion on the point in dispute, Professor Pritchard demanded a guarantee from me, or my employer, that in the event of a new trial being procured, we would pay him no less a sum than twenty-five guineas when we subpœnaed him. As I could give no such promise, I had to take the animal home again without even obtaining an opinion, although I offered to pay him the ordinary fee of one guinea for it.

Now, Sir, upon what principles of morality—commercial or otherwise—can you explain such inconsistent proceedings? Surely, Sir, I was entitled to an opinion by paying for it. But it seems not so, according to their code of morals. Yet they do not scruple to resort to the discourteous and unprofessional conduct recorded by Mr. Moore.

There is not another establishment conducted on the same principles in all the Metropolis or anywhere else; and I think the profession as a whole, but more especially the Metropolitan members, have a right to demand some explanation of such conduct, and make a move towards the suppression of such practices.

If by securing subscriptions for the support of the institution from the wealthy, in order to treat the animals of the poor *gratis*, I could understand and respect their motives; but that they should solicit subscriptions in order that they may secure business on such terms, is, in my opinion, humiliating to their manhood and derogatory to the dignity of the profession.

You, Sir, are sometimes, as I think, rather severe on some needy brother who ventures beyond the artificial boundary of professional etiquette, by hanging out his card at the "Cabman's Rest" or "The Malt Shovel," announcing that he will assist gentlemen in the purchase of horses, &c., &c., but such conduct sinks into insignificance when compared with that recorded by Mr. Moore, and regarding which you are silent.*

Nor is this the only count in the indictment of unprofessional practices that the profession can bring against the professional staff at the R.V.C.

It is generally considered that professors are men of culture and large mental calibre, capable of taking the lead in all matter pertaining to the profession—holding aloft the banner of science, and pointing the way to us plodding practitioners. Instead of this, we find them actually writing down the profession to the level of the ignorant and the vulgar.

Not long ago, I received a circular from them requesting me to purchase what they were pleased to designate an "Encyclopædia of Practical Receipts," to inform all and sundry how to make all kinds of oils, pills, lotions, liniments, balsams, drinks, ointments, and even soups and blacking!

Think, Sir, of a whole staff of Veterinary Professors being engaged in such an undertaking—writing down the science to the million, on the *ad captandum vulgus* style.

Perhaps, Sir, it is on the principle that an educated man "*rises to simplicity*," and that it is only the pedant and the fool who need to cover their ignorance with the jargon of science and the schools. Whatever the occasion, or on whatever principle they proceed, it is, to my mind, exceedingly unprofessional, and not quite calculated to inspire us with respect for their ability, or esteem them for their labours in the interest of science.

I trust Mr. Moore will not fail to convene his "*several members*," so that united action may be taken on this matter, and have it brought before the profession at its annual meeting, in the shape of a vote of censure, as I should judge we can do under the Supplemental Charter, or some such procedure, to mark its disapproval of such conduct.

I am, Sir, yours faithfully,

JOHN GERRARD, M.R.C.V.S.

Romford, Essex.

* If our correspondent will refer to a certain leading article in the first volume of this journal, he will discover that he is mistaken as to our silence. We have always held the opinion that the system on which the Royal Veterinary College is maintained is most discreditable, and such as would not be tolerated for an hour if adopted by any medical school. It is not only unprofessional in the extreme sense of the term, but it is derogatory to veterinary science, most injurious to metropolitan and suburban practitioners, its own *alumni*, and is in no way whatever beneficial to the students, but rather a disadvantage to them.—ED. *V. J.*

To the Editor of the VETERINARY JOURNAL.

SIR,—I am not in any way grieved that Mr. Moore is not known to me in the flesh, and whatever may be his ultra-professional qualifications, I should be glad to know that two pages of your next number are not to be occupied by illustrations of the scanty progress Mr. Moore seems to have made in the principles of logic and other sciences which more immediately concern him. Without admiring Mr. Moore's mental deportment, I venture to think with him, and all the world besides, that space in your journal, or in any other, "is not wasted when it contains something of interest"; and still further, that the subject chosen by Mr. Moore is one of paramount importance, not only to the veterinary profession, but to all others. Nothing is so much to be desired as remunerative fees, and nothing is so much to be abhorred as "dishonest competition." It may be laid down, as a truism, that ability will always command the former, and that the latter will sooner or later meet its just reward. No one, I venture to say, but a profligate noodle, totally devoid of all moral courage and business capacity, would play the ludicrous part portrayed by Mr. Moore in his canine episode. Nor can I think that Mr. Moore himself will admit having been guilty of the quixotic performance he depicts in the November number of your journal. In what frame of mind Mr. Moore conceived the possibility of even the humblest member of our profession spending an hour with an antiquated dame, affected with canine madness, and entertaining her during that time with awkward spasmodic smiles, and her dogs with blacking, it is difficult to comprehend. Leaving dogs and dog-doctors, we are entertained with a rambling effusion regarding the Royal Veterinary College and its professors. Mr. Moore complains that the College has an infirmary, and that the College exercises its rights to exist. He was probably once a student at this same institution, and while thus acquiring the means to live, he shared with subtle equanimity and unblushing zest the very plunder which he now charges the College with exacting from the practitioners of London. For this privilege Mr. Moore's big-hearted gratitude and charity would banish myself and all future generations of students from the confines of London, to seek the luxury he has acquired in less awkward times than these, wherever and at whatever cost we may. The privileges offered to subscribers of the Royal Veterinary College are necessary to the life of the institute as a teaching school, and with occasional crack-brained exceptions the practitioners of London have always displayed a spirit of generosity and self-denial worthy of the cause they espouse. The educational department of our profession is, and must ever be, to a greater or less extent, a tax on those who follow it—just as the hospitals of London are a tax on medical practitioners; and it is gratifying to know that the impost is borne with grace and liberality, and that the sore-headed growl which Mr. Moore has initiated is not likely to be taken up by right-thinking men. Why Mr. Moore should feel hurt because a poor professor thinks proper to occupy his own time in his own way is not a little mysterious! Perhaps, if Mr. Moore were to practice the early-morning movement he complains of in the indefatigable professor there might be no necessity for his growl, and the firms who now fail to recognize his worth would, to say the least, admire his industry. I have always found that when gentlemen can have satisfaction from private practitioners, they are glad to have their horses under their own eye, and when it is necessary to send them to the College, the cases are generally such as no veterinary surgeon would care to retain. "None of the money of the College," says this illustrious gentleman, "goes to benefit the profession." I know that I am appearing ridiculous in noticing so obvious a mis-statement, but my profound sympathy with the man who indulges such thoughtlessness compels me to remind him

that the Royal Veterinary College is conducted by a body of gentlemen, whose only aim is, and has been for years, to benefit the profession; and to represent them as otherwise disposed is a base libel. The Governors of the Royal Veterinary College have declared, by every act, their deep anxiety for the welfare of the profession, and this is most strikingly illustrated by their resolve to admit into the College only those who have a knowledge of French, and are otherwise men of culture. It is due to them to say that in this direction they have set an example which our friends in the North should lose no time in following. It is, indeed, the duty of the Royal College of Veterinary Surgeons to insist on a uniform standard of education for all the schools, and this subject should be raised in the Council Chamber in May next. As a student, I protest against the loose regulation that permits French to be demanded of me, while no such qualification is required at the Scotch colleges. To put the mildest construction on Mr. Moore's letter to Professor Axe, I should say that it is about as windy an effusion, and displays as little fine feeling, thoughtfulness, and intelligence, as the letter in which it is embodied. Professor Axe evidently knows how to deal with such tender epistles. I must, however, say that if his conduct is not mis-stated, an explanation is due from him. In addressing Professor Axe, Mr. Moore says: "You must be aware that it is unlawful to remove an animal affected with a contagious disease." No doubt this was news to Professor Axe, as it was to myself. The remark is peculiarly characteristic of Mr. Moore's reckless statements, and will require to be very materially qualified before it can be admitted. I must apologize to you, sir, for the general tenor of this letter, and rely for its insertion on the authority of Mr. Moore, who has said that "space is not lost which contains anything of interest.'

I am, yours obediently,

"A STUDENT."

THE ARMY VETERINARY DEPARTMENT.

To the Editor of the VETERINARY JOURNAL.

DEAR SIR,—By the new Veterinary Warrant, which came out in May last, a number of veterinary surgeons in the department have, I think, met with very hard treatment. I speak of those who entered the service under the old warrant, and are not First Class Veterinary Surgeons, though they have more than five years' service; indeed, I think I might with justice include all those on the old list.

Formerly a veterinary surgeon was *eligible* for promotion after five years' service, and it generally came to his turn after nine or perhaps ten years. Now he is only *eligible* after twelve years; so who can say when the desired step may come? Probably after sixteen or eighteen years. As I read the warrant, these officers come under clause 15, but *not* under clause 8; so that this long looked-for warrant, which we all hoped so much from, has simply put back the promotion of the *majority* of the department for *seven* years. For this hardship we are conceded sixpence a day.

In my humble opinion, the officers of the department throughout are *most wretchedly* paid; but compared with the medical department, our pay is simply ridiculous. I give you a case which came under my own observation in India, some months ago:—

A cavalry regiment had a strength of men 461, of horses 406. In charge of the men were *three* surgeons-major. The senior drew 1,050 rupees per month, with allowance for three horses. The other two *each* drew 789 rupees per month, and allowance for three horses *each*. These officers were exempt from mess and band subscriptions, and only paid for their dinner when they dined at mess. In charge of the horses was *one* veterinary surgeon, whose pay was 395 rupees per month. *All horse allowance was*

supposed to be included in this miserable pittance. This officer paid to mess and band funds, as a lieutenant, and, as a bachelor, paid for his dinner nightly whether he dined or not.

Is this either fair or just? Of course, we are a smaller and weaker department than the medical, but we are not a bit less useful or necessary. Why, then, should we be treated so differently? If we are too weak or indifferent to fight for ourselves, will not some one *really* take up our cause, and fight for us, as the medical officers, or their friends, fought for their department? I am, Sir, yours faithfully,

"ONE OF THE SUFFERERS."

To the Editor of the VETERINARY JOURNAL.

SIR,—I am sure the thanks of the Army Veterinary Department are due to you for the editorial remarks contained in your journal for January, as also to your correspondent "Philolethes" for his letter on service in India. I would ask a small space in which to bear out one of the statements contained in your correspondent's letter, viz., "that the pay given in India to veterinary surgeons under the rank of first-class is a miserable pittance."

Take, for example, a veterinary surgeon joining the army under the provisions of the present warrant. Whilst on home service he will receive annually—pay, £250; forage allowance computed at £63 17s. 6d.; quarters, fuel, and lights, equivalent to £38; and, lastly, the services of two soldier servants, estimated at £30.* The whole amounting to £381 17s. 6d. From the date of a veterinary surgeon's arrival in India, he is placed on consolidated pay and allowances—377-8 rupees a month, or 4,530 rupees a year. If this sum be reduced to English currency for the purpose of comparison, at the present rate of exchange (*i.e.*, 1s. 7d. per rupee) it amounts to £358 12s. 6d., or £23 5s. less than he was in receipt of when on the home establishment. Out of the above sum he is required to forage his horses, rent his quarters, pay his servants, and meet all the expenses incidental to Indian life, as well as all the heavy charges attendant upon an almost incessant moving from one station to another. Add to these the risks to health, and the occasional necessary change to a hill station, and it will surprise no one that unless he lives a life of constant self-denial, and is the possessor of the most frugal habits, it is not very long before he makes the acquaintance of the regimental "shroff" or native banker, who will let the "sahib" have any sum of money he may require on personal security alone, always providing he is prepared to pay from 20 to 25 per cent. interest upon it. This is no romance. All other branches of Her Majesty's Service are liberally remunerated for their services; and a campaign, to other departments, means a field of enterprises, where honours and distinctions may be fairly reaped, and where all may compete alike in obtaining those more substantial rewards which follow successful efforts in any sphere. Now, sir, can a single instance be pointed out in which honours, distinctions or rewards, however trivial, have ever been conferred on veterinary officers, even though good and meritorious services in the field were acknowledged to have been rendered; It will probably be found that the highest distinction ever

* These sums are necessarily proximate only, as the amounts vary at different stations. Forage allowance, for instance, ranges from 1s. 6d. to 1s. 11d. a day for each horse, and is calculated at 1s. 9d. Government quarters in India, when available, are charged at the rate of forty rupees a month—£48 a year. The sum given to officers by the home authorities in lieu of a soldier servant, is 1s. a day—£30 a year for two servants.

attained has been "mentioned in despatches," and in no single instance have the honours and rewards so freely scattered through the ranks of other departments ever reached our own.

There is, therefore, no need for an expression of wonder that veterinary surgeons, when called upon to volunteer for service in India, prefer to remain at home, and naturally shrink from entering a field where they are readily permitted to share all the risks and disadvantages, but under no circumstances allowed even to hope for ulterior reward. I venture to think that if it could be shown in other branches of Her Majesty's Service, as it can in the junior ranks of the veterinary, that "volunteering for India" is only another name for "financial difficulty," there might possibly be less enthusiasm manifest amongst them to participate in the task of upholding the honour, glory, and majesty of England.

I remain, Sir,

Yours obediently,

"VETULA AVIS."

PROMOTION IN THE ARMY VETERINARY DEPARTMENT.

To the Editor of the VETERINARY JOURNAL.

SIR,—As you have been good enough to give space in your excellent journal for the ventilation of the army veterinary surgeons' grievances, will you kindly favour me by inserting the following remarks :—

From January 1st, 1797, the date of the introduction of veterinary surgeons into the Army, till the warrant of 1859 was promulgated—a period of sixty-two years—these officers enjoyed no higher rank than that of lieutenant; and until this date they were all regimental officers, receiving increase of pay at stated periods of service. The warrant of 1859 reformed the department; in fact, it may be said to have created it, as the veterinary surgeons could hardly have constituted a department till its promulgation. This warrant established three grades, viz., veterinary surgeon ranking with lieutenant; 1st class veterinary surgeon ranking with captain; and staff veterinary surgeon ranking with major. The veterinary surgeon was made eligible for promotion to 1st class on the completion of five years' full-pay service, and the 1st class veterinary surgeon became eligible for promotion to Staff Veterinary Surgeon after the completion of fifteen years' full-pay service. But although this warrant was liberal in giving eligibility for promotion at these respective periods, it was so framed (the numbers in each grade being limited to six staff, one-third of the remainder 1st class, and the rest veterinary surgeons, the total number of the department being about 120 officers), that few could realise their promotion till many years after becoming eligible; and the working of the warrant proved unsatisfactory, excepting for those who were fortunate enough to find themselves at the top of the list when it came into operation. The six staff appointments were the only ones that were made remunerative (these, in addition to being well paid, were worth about £200 per annum each in allowances), and it was naturally hoped at the time of their establishment that they would be held for a limited period only, and that every officer would have an opportunity of reaching the rank from which he could retire with a fair pecuniary allowance. It was, however, soon found that these advantages would not be realised by any but a select few, and that the 1859 warrant, though a considerable improvement on the previous one, was framed principally in the interests of the seniors.

Since the rank of Staff Veterinary Surgeon was created in 1859—now nearly 20 years ago—promotion to this grade has been at the rate of barely

half a step a year (the senior at present has held his appointment for nearly eighteen years), so that if the warrant had continued in force, but very few officers would have stood the remotest chance of obtaining the rank of major.

Promotion to 1st class was more favourable ; but although the veterinary surgeon was eligible for this step after five years' full pay service, he did not get promotion till on an average of 10½ years' service ; the average number of steps to this rank being about four per annum. Promotion was not always given to the seniors, *but to those whom the Principal Veterinary Surgeon thought fit to recommend*, which was of course very unsatisfactory, as many, for no fault of their own, were passed over by juniors. If this state of things had continued, the junior Veterinary Surgeon who joined under the 1859 warrant, and who is sixty-eight places from the top of his list, would not have received his promotion to 1st class till about his eighteenth year of service.

The prospects of the *juniors* being so far from bright or encouraging, is imagined to have been the *sole* cause of the authorities deeming it expedient to make a change ; consequently, with the intention of improving *their* position, it is concluded that the 1878 warrant was promulgated. Now let us see what it has done towards that object—1. What has the new warrant done for the Inspecting Veterinary Surgeon (staff and inspecting are synonymous terms)? It has made a most substantial addition to his effective and non-effective pay, which is so much in his favour, compared with the additions of pay made to the other ranks, that evil-minded persons, and those who know nothing about the manner of the hatching of Royal Warrants, say that the seniors framed and incubated it themselves ; but of course better informed people know that such was not the case. The following table shows the decimal increase of pay given by the new warrant to the three ranks :—

RANK.	ON THE FULL PAY.		ON THE RETIRED PAY.	
Inspecting V. S.	Maximum ·304	average ·175	Maximum ·369	average ·315
1st Class V. S.	„ ·2	„ ·093	„ ·185	„ ·095
Veterinary Surgeon	„ ·115	„ ·044	„ nil	„ nil

2. What has the new warrant done for the 1st class veterinary surgeon? It has given him a slight increase of pay and the right to retire, after twenty years' service on 9s. per diem, or 1s. per diem more than the 1854 warrant (this was cancelled in 1859) gave a veterinary surgeon who had served five years abroad, after the same period of service. This is not very liberal, since the majority of veterinary surgeons now spend half their time on foreign service, and 8s. in 1854 was certainly worth as much as 9s. at the present time. His promotion is retarded, in consequence of greater inducements having been given to the Inspecting Veterinary Surgeon to remain on full pay till he becomes disqualified by age ; the maximum full retired pay of this rank not being attained till after thirty years' full-pay service ; whereas under the old warrant it was received after twenty-five years' service.

3. What has the new warrant done for the veterinary surgeon? It has given him a very slight increase of pay. It compels him to serve seven years longer than the 1859 warrant required, before making him eligible for promotion to 1st class, and then it is not a *sine quâ non* that he gets promo-

tion. If serving in India after the time he would have been promoted under the old warrant, he now loses £175 per annum for every year that his promotion is withheld, that sum representing the difference between captains' and subalterns' allowances in that country. It has deprived him of the privilege of keeping two horses at the public expense, when disposed to do so; as the new warrant allows forage only for the number of horses considered necessary by the authorities for the performance of his duties. So that in many cases the veterinary surgeon who has hitherto kept two horses, and who still keeps them, will suffer the loss of 1s. 10d. per diem, unless it should so happen that two horses are considered necessary for the performance of his duties, and the veterinary surgeon so situated is 1s. 4d. per diem less paid than he was under the old regulations.

4. What are the veterinary surgeon's prospects of promotion to Inspecting Veterinary Surgeon? The average rate of promotion to this rank for the next 23 years will be 51 steps, or at the rate of $2\frac{3}{23}$ steps per annum; or if these officers are compelled to retire at 50 years, instead of 55 years, it will be 51 steps in 18 years, or at the rate of $2\frac{3}{4}$ steps a year. So that if all the 51 officers die or retire 5 years before they will be compelled to retire under the present regulations, the position of the juniors as regards promotion would be very little improved; even if three steps a year occur, the junior 1st class officer will have to wait 15 years before his turn comes, and he will then have 26 years' service.

The new warrant, therefore, cannot be said to have fulfilled the object which it is imagined it had in view. The Treasury has, undoubtedly, been liberal in granting so large a sum (nearly £3,000 per annum) to the department; but all who have considered the subject must agree that the distribution of this sum amongst the three grades of veterinary surgeons has not been quite equitable. If the distribution had been fairly made throughout the three grades, and promotion insured at stated periods, the great dissatisfaction which the provisions of the warrant appear to have occasioned, would not have resulted.

If the warrant of 1859 had remained in operation, with the provision that all officers should be promoted unconditionally at the periods of service at which that warrant made them eligible for such promotion (the promotion to Inspecting Veterinary Surgeon not in all cases to have necessitated removal from regimental duties), with the rates of pay allowed therein, it would, undoubtedly, have given satisfaction to all officers in the department, with the exception of those few who could have gained nothing by such a change.

The remedy for removing the dissatisfaction that now exists is, to give unconditional promotion to 1st class at not later than ten years' service, and the relative rank of major at not later than twenty years' service, with a fair increase of pay; the latter promotion not to necessitate removal from executive duties. Further, to make it compulsory that all officers shall pass the Fellowship Examination of the Royal College of Veterinary Surgeons before they are appointed Inspecting Veterinary Surgeons, which would insure their professional efficiency, and be a stimulus to competition for these very remunerative appointments. Trusting you will forgive my trespassing on your space at such length.

Yours obediently,

"FINEM RESPICE."

MILITARY AND CIVILIAN VETERINARY SURGEONS.

To the Editor of the VETERINARY JOURNAL.

SIR,—The following editorial paragraph appeared in a prominent position in the leading military journal, *The Army and Navy Gazette*, on the 7th

December instant :—"As we stated last week, a number of senior veterinary officers are required for service in India ; but as yet only one has volunteered, as it is said, and with perfect justice, that there is absolutely nothing to induce a veterinary officer to leave his wife and family and undertake duties in the discharge of which he may find his constitution ruined and himself unfitted for further service. There are neither promotions, distinguished service rewards, nor honours to be gained. Under the circumstances it is not, perhaps, to be wondered at that the head of the Department expresses his belief that it will be perfectly hopeless to look for volunteers from among the senior members."

This is not the first time by very many that the above-mentioned journal has spoken on behalf of military veterinary surgeons, who owe it a deep debt of gratitude for its persevering advocacy of their neglected claims. The above extract is pregnant with meaning, and fully explains why veterinary officers of standing shrink from Indian service ; for no matter how meritorious or how advantageous to the country their services may be, it seems as if they were almost systematically ignored. Why does this appear to be the case, and what is the reason ? Veterinary surgeons have never heard a reason, and cannot imagine one. Can it be that it is a remnant of the old ideas, when knowledge and intellect occupied a secondary place, and when it was the fashion to look down upon some members of the regimental staff—which is really the *brain* and, consequently, the chief factor in the efficiency and well-being of a regiment? For the benefit of the uninitiated, it may be explained that the regimental staff comprises the following officers : the colonel, major, adjutant, surgeon, veterinary surgeon, riding-master, and the quartermaster. These officers, being clever and energetic, it follows, as a matter of course, that the regiment must be in good order.

Of the regimental staff, the veterinary officer is one of the most important members, and every commanding officer knows how much depends on his having "a good veterinary surgeon." This being universally granted, can anything be more injudicious than a niggardly or unjust treatment of the veterinary officer, who, if he simply does his duty, is not doing well ; for, in his very responsible position, it is not only necessary that he should do that, but also far more—he must take a lively interest in the welfare of his regiment, and especially of the horses, and show it by a cheerful forethought and consideration which no mere duty can compass or claim from him.

It is an undeniable fact that a veterinary surgeon of cavalry, or any other branch of the service, who does his duty, and that *other something* just named (and one who does not do so is a rarity), is one of the most important and valuable officers in his regiment, and is also one who is constantly conferring on his comrades great and unselfish kindnesses, which, however much they desire it, they are unable adequately to repay. The kindnesses of the regimental veterinary surgeon are proverbial ; and the other officers are so accustomed to receive them that they almost forget they are kindnesses at all. How often does he prescribe for, and take endless trouble over their sick hunters, polo ponies, and other quadrupeds, which it is not his duty to do ? and what can be more unselfish than his conduct? Far be it from me to insinuate that they are ungrateful to him ; but what I do assert is, that he has it in his power to do, and voluntarily and cheerfully does, more for his brother officers and others than they receive from any one else.

The veterinary surgeon knows that he is one great means of keeping the regiment effective, not only by curing the sick and lame, but also by his watchful supervision of the horses generally. His suggestions are often required, not only as regards health, but also in preserving their condition ; and no matter how well a regiment drills and works, all is eclipsed if its horses look bad, for that is a sure sign of an important part of its interior economy

being at fault. Very rarely, in fact almost never, is the veterinary surgeon to blame for this; for he is usually the first to notice it, and to point out what, if his suggestions be attended to, seldom fails to prove an effectual remedy.

But however well the military veterinary surgeon may do his duty, he must unfortunately not be surprised to find that with him "virtue is its own reward"; and the question may well be asked, why his guerdon is not something more substantial and satisfactory? The fact that the reward of meritorious military veterinary surgeons is almost *nil*, is a melancholy one; but they should not therefore be disheartened. They should strive to bring about an alteration, for nothing can be gained by keeping silence. Let them remember the advice of Jupiter to the countryman with his cart in the mud, and profit by it; for by sitting down, and not perseveringly but respectfully urging their just claims, they are playing an unworthy part, and one which will bring nothing but disappointment.

Let us, in pursuing the examination of this question, cease speaking of the army alone, and give a general consideration to the subject. In forming our opinions, we must not forget that the claims of intellect and science to recognition in our country are only now beginning to attract attention, and force themselves on the notice of the public. It is the province and the glory of professions, and of ours by no means the least, that they imply special training, thought, and knowledge; and that, above all, they demand power of initiation and energy on the part of those who have become members of them. It is difficult for those of other avocations, which to a great extent work in certain defined grooves, to see the importance of knowledge, because they too often fail to understand its value. The medical profession has for ages been a prominent sufferer from this cause; but it has of late years undergone a great awakening, and now sees that, by identity of interest and a due assertion of its claims as the noblest of sciences, it can command almost any influence. In Europe, intellect—the triumph of mind over matter—is slowly but surely making its way to that goal where it will use physical strength as its instrument. Our science, too, will take its proper place, and will more quickly do so if those who profess it will only realize the very great importance of their own profession, and if they learn to consider it as far superior to those occupations which run in certain defined grooves, and which follow instructions carefully and strictly laid down in a few books,—which, therefore, only demand from their members application and attention, and which may be called almost mechanical, and consequently easy. But with the veterinary surgeon all is different. He is subject to much anxious thought; he finds that he cannot obtain what he wants from books alone, nor from experience, but that he must also diligently exercise his own brains, and *initiate*—for he has not to do with a piece of machinery, but with beings which, like man himself, are "fearfully and wonderfully made," and subject to all the ills that flesh is heir to.

Comparatively few veterinary surgeons have an adequate conception of what is due to their services, and very many indeed do not know one of the greatest secrets of success in life, viz., that the world is very much inclined to take a man at his own valuation of himself, and only reluctantly forms a lower estimate of him than his own. If they look around at those who have been successful in any profession or other avocation, they will find abundant proof of this maxim. The world having this opinion, not only of individuals but of professions, why should not ours act up to its wisdom? for it has gained, and can gain, nothing by its thus far absurd undervaluation of itself.

Your obedient servant,

"A Veterinary Surgeon."

THE TITLE OF VETERINARY SURGEON.

(The following are the two instances of imposition referred to in our last issue by "Verbum Sap.")

"GROSS CRUELTY."

YESTERDAY, before the Durham county magistrates, Robert Ayre, who said he had been a veterinary surgeon since the year 1820, was summoned for cruelty to a pony on days subsequent to the 27th of July. The prosecution was instituted by order of the Society for the Prevention of Cruelty to Animals. Evidence was adduced by several witnesses, showing the defendant had purchased the pony for 7s. 6d., with its right fore-leg broken. He declared that he could cure the leg and make the pony into a valuable brood mare. On the 30th of August he was seen taking the pony from a stable near High-street, Stockton, to a field near the racecourse, South Stockton, distant about a mile. The pony was going on three legs, its broken leg trailing along the ground. Two policemen stopped him on the road; but upon the defendant stating that he was taking the animal to be destroyed he was allowed to pass. He next placed it, without permission, in a field belonging to Mr. Garbutt, where it lay for some days unable to move, and but for Mr. Garbutt's servant taking water and food to it death would have occurred from starvation. Information was conveyed to the Society, which caused Mr. Harrison, veterinary surgeon, of Darlington, and Mr. Batey, veterinary surgeon, of Stockton, to visit the pony in company. They found that the bone of the arm of the right fore-leg was broken clean in two, and that the limb was twisted round, it being impossible for the fracture to be set. The skin had chafed off the side next the ground all over the legs and body, the nose was much swollen, and one ear full of matter and fly-blown. Both professional witnesses agreed that it was the most pitiable case of neglect they had ever seen. Defendant was informed that these gentlemen considered the mare incurable, but he threatened to prosecute any one who destroyed it, and ultimately the animal died on the 23rd of August. The Bench said that this was much the most discreditable case they had ever known, and committed defendant to two months' hard labour, without option of a fine. He was ordered to pay the expenses of the prosecution, or undergo an additional month's hard labour in Durham gaol.

"THE VETERINARY SURGEON AND THE MAGISTRATES."

MARLBOROUGH STREET.—George Mills, a van proprietor and driver, was charged with cruelty to a horse.—Police-constable William Leonard, 226 E, stated that he saw an old roan horse drawing a van in Seven Dials, and, as the horse appeared to be very lame in the left fore-leg, and in great pain, he charged the prisoner, who was driving it.—Mr. J. G. Cattrall, M.R.C.V.S., said the horse was extremely lame from complicated diseases of the near fetlock joint and foot. The entire ligaments covering the joint were ruptured, and so decidedly transformed as to render the case incurable. The horse worked in great pain, and was totally unfit for work.—The prisoner called Mr. A. Barclay, veterinary surgeon, of Vincent-square, who said the horse had been under his observation for about two years. He was of opinion it was quite sound, free from any disease, and better at the present time than two years ago.—Mr. De Rutzen asked the witness three times whether the horse was "quite sound," and he answered sometimes in the affirmative and sometimes in the negative.—Mr. De Rutzen said he would see the horse himself; and after examining it he returned to the Court and said:—I have seen the horse is quite unfit for work, and the only thing that surprises me is that there is a veterinary surgeon in London who will say that it is fit for work, that being done to deceive me as a magistrate. If the witness is a

member of the College of Veterinary Surgeons, he is a disgrace to it. The prisoner will have to pay a fine of 20s., and 10s. 6d. costs, and if he comes before me again, and I find the horse at work, I shall deem it a case for imprisonment, and not a fine.

A DOUBTFUL CASE.

To the Editor of the VETERINARY JOURNAL.

DEAR SIR,—Accompanying this letter I send a bottle, the contents of which I cannot determine as to whether it is a worm or ordinary tissue. If you think the case worthy of space in your valuable journal, I shall be very grateful for its insertion, and more so if you will give me your opinion as to the morbid specimen. I was away on leave when the case occurred, and only saw the horse when the wounds were nearly healed. The specimen had been then some time in spirit, and I did not like to take it out, lest I should destroy it. It was preserved and given to me by Captain Hamilton, 2nd Cavalry, Hyderabad Contingent, Bolarum, who thought I should like to send it to you, and this is the first opportunity I have had.

Aug. 12, 1878.—A troop horse of the 2nd Cavalry, Hyderabad Contingent, was admitted to hospital with a swelling over the withers, which were supposed to have been pinched by the saddle. The withers were much swollen on both sides and above, and there was great heat and pain in the part. Treatment, constant fomentations.

Aug. 13.—The enlargement on the near side was very soft. An incision was made low down to the extent of an inch and a half, when there issued a thick yellowish discharge. The wound was thoroughly cleaned, and the probe introduced, when it was found to extend some three or four inches forwards and upwards. Thoroughly washed out, fomented, and dressed with Acid, Carbolic, 1 oz.; Oleum (Lini ?), 8 oz., on a pledget of tow.

Aug. 14.—An incision was made on the off side, in a corresponding position to the near one, but to the extent of two inches or more. The discharged matter was of a greenish-yellow colour, and of the consistency of rotten cheese, remaining in a mass as it fell on the ground. Warm water was then syringed into the wound, and immediately the worm, or whatever it may be, was washed out. The wounds were afterwards treated in the usual way with the dressing before mentioned, and in about six weeks (when I saw the horse for the first time) they were nearly healed. The horse is now at work, and the only remaining trace is a cicatrix on either side of the wither.

I have consulted two or three medical men concerning the specimen, but opinions are divided, as we feared to remove it from the bottle. The reason I have named it a worm is because it was handed to me as such, and believed to be so by the native Salootries.

I am, sir, yours faithfully,

S. M. WILSON, M.R.C.V.S.,

Secunderabad, *Nov.* 18. 12th Royal Lancers.

[Professor Duguid is of opinion that the so-called worm is nothing more than a slough of fibrous tissue, probably detached from the border of the supra-spinous ligament. After a careful examination of the specimen, we quite concur in this opinion.—ED.]

"SPURIOUS TITLES."

To the Editor of the VETERINARY JOURNAL.

SIR,—Your very able leader on the assumption of the title of Veterinary Surgeon deserves the serious attention of the members of the profession, and particularly of those practising in the country. Now that the curriculum at the Colleges has been extended, and the matriculation examination made in uniformity, young men of a better grade must enter the profession. The only drawback now is that of "protection;" so that after years of hard work, study, anxiety and expense, the title of "*Veterinary Surgeon*" shall alone pertain to those duly educated. Our eyes are directed to you, sir, as the most energetic councilman, and when you know you have the "body" with you, I am sure you will overcome all obstacles. There is another matter should at the same time receive some attention; that is, the assumption by members, and mostly young ones, of other than the only legal insignia of the College. Some time since a gentleman of position came to me for the explanation of a bill-heading, thus, "Member of the Royal College of Veterinary Surgeons, London; Member and Fellow of the London Veterinary Medical Society, Member of the Central Veterinary Medical Society, etc., etc., etc." Now the member was no very extraordinary individual, and had hardly the strength to support so much. The gentleman laughed at the explanation, and remarked he was surprised the College authorities allowed such ridiculous bosh.

It is quite time we assumed to be *men* and gentlemen, and took our professional standing in the eyes of an enlightened public. To do this we must firstly away with all *bunkum*, and if these young gentlemen will not see it is to their interest to do so, they might be taught by a wise "bye-law."

What a difference between these and the matured practitioner! The inclosed heading was handed to me by a gentleman much interested in our profession. Here is a much-respected member of the profession, and a veteran, who scorns the title "M.R.C.V.S.," and further states, "Member of Council from —— to —— of the Royal College of Veterinary Surgeons, *and refused the Fellowship.*" Of course, this reads both ways; but I opine he refused the honour of Fellowship. At least this was my construction, but I may be wrong. How conscientious of him, if he thought himself unworthy! Yet I suspect it arose from peculiar emotions of a disordered mind. However, I do trust time will, if it has not already, efface all such "rancour.'

We are also informed by the same heading, "the best qualification for examination as to soundness is anatomical knowledge." I cannot get to the weight of this; my own judgment leads me to infer that sound pathological knowledge leads us to a correct diagnosis of deviations from normal structure. Anatomy teaches us the situation and structure of organs and textures in their normal condition, it is true; but, unless united with sound pathological research, it must fail the desired end.

Trusting, sir, the New Year will bring you health and strength, bodily and mentally, to work with vigour in your most useful professional career, and that prosperity may attend you,

I am, yours, etc.,

"ARTEMUS SECUNDUS."

London, *January 1st*, 1879.

NOTICES TO CORRESPONDENTS, &c.

VETERINARY INSPECTOR.—A fairly good appointment is advertised in the present number of this Journal, of Veterinary Inspector to the Strokestown Union in Ireland. The salary is £120, and we should think the work would not be of a very arduous nature, leaving ample opportunity for private practice.

A CANDIDATE.—1. The expenses of a veterinary surgeon in the army vary considerably, being greatest in a regiment of Cavalry, and less in the Artillery, Transport, and Veterinary Department. 2. The necessary expenses are mess and band subscriptions, uniform, horses and horse equipment, etc. 3. There are no examination expenses on joining the army. 4. There are no fixed periods for the examinations, which are chiefly of a practical character, and do not require special reading up. 5. The army veterinary surgeon can resign his Commission when he chooses.

Communications, Books, Journals, etc., Received.

COMMUNICATIONS have been received from Graham Mitchell, Melbourne, Australia; G. Gray, Bakewell; F. Vetchell, Lynn; "Artemus Secundus"; "One of the Sufferers"; W. Smith, Mullingar; J. Cook, Belfast; "A Candidate"; S. M. Wilson, 12th Lancers, Hyderabad; J. Gerrard, Romford; W. J. Masters, Royal Artillery; J. H. Bennett, Havering-atte-Bower; J. Mackinder, Peterborough; "Finem Respice"; "Vetula Avis"; J. Rowe, London; Professor Walley, Edinburgh; R. Ward, London; H. W. Coates, London; J. Masson, Kintore; "A Student."

BOOKS AND PAMPHLETS: *F. Eichbaum*, Die Brusthöhle des Pferdes; *H. Putz*, Ueber Wundheilung; *A. Wynter Blyth*, A Manual of Practical Chemistry; The Analysis of Foods and the Detection of Poisons; *F. Saint-Cyr*, Manuel Pratique de l'Exploration de la Poitrine Chez les Animaux Domestiques; Quarterly Journal of Inebriety.

JOURNALS, ETC.: *Archives Vétérinaires; Recueil de Médécin Vétérinaire; North British Agriculturist; Farmer; Agricultural Gazette; Mark Lane Express; Annales de Méd. Vétérinaire; Revue Vétérinaire; Live Stock Journal; Wochenschrift für Thierheilkunde und Viehzucht; Animal World; Chicago Live Stock Journal; Journal of the National Agricultural Society of Victoria; Der Thierarzt; Archivio di Medicina Veterinaria; La Clinica Vétérinaria; Giornale di Medicina Veterinaria; American Veterinary Review; Lancet; Edinburgh Medical Journal; Practitioner.*

NEWSPAPERS: *Daily Telegraph; Montreal Gazette; Broad Arrow; Army and Navy Gazette; Montreal Star; Manchester Guardian; Scotsman; Indiana State Journal.*

All Communications, Books for Review, Advertisements, etc., must be addressed to the Publisher, 20, King William Street, Strand, W.C.

Morbid Specimens are to be forwarded, addressed to the Editor, VETERINARY JOURNAL, Brown Institution, Wandsworth Road, London.

Communications must be accompanied by the name of the writer, whether he may desire to have it published or not. Anonymous letters and articles cannot be inserted. The Editor does not hold himself identified with the views or opinions expressed by Contributors. Communications for insertion in the next number must arrive on or before the 15th of the present month.